Public Utilities

Volume 60 No. 7 September 26, 1957

ACCELERATED DEPRECIATION
By F. Warren Brooks

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The Co-op as a Vehicle for Power Service
By Bennett L. Smith

« »

School Fares—Whose Subsidy?
By William J. McKenna

« »

Addresses on Public Utility Problems—Public Utility Law Section—American Bar Association—Appendix

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Public Utilities FORTNIGHTLY

VOLUME 60 SEPTEMBER 26, 1957 NUMBER 7

ARTICLES

Accelerated Depreciation ..... *F. Warren Brooks* 433
Appropriate regulatory treatment may lie in consideration of the applicable rate of return rather than in adjustment of the rate base.

The Co-op as a Vehicle for Power Service ..... *Bennett L. Smith* 442
Are REA power co-ops really co-ops, or a bridge to some other type of politico-economic organization?

School Fares—Whose Subsidy? . . *William J. McKenna* 451
School fares represent a tax on the transit system for education—a cost which properly belongs in the budget of the political subdivision.

FEATURE SECTIONS

Telephone and Telegraph 455
Financial News and Comment ..... *Owen Ely* 458
The March of Events 467
Progress of Regulation 470
Utility Addresses before the American Bar Association — Appendix 482
Industrial Progress 25
• *Pages with the Editors* . . 6 • *Utilities Almanack* 21
• *Coming in the Next Issue* 10 • *Frontispiece* 22
• *Remarkable Remarks* . . 12 • *Index to Advertisers* . . 38

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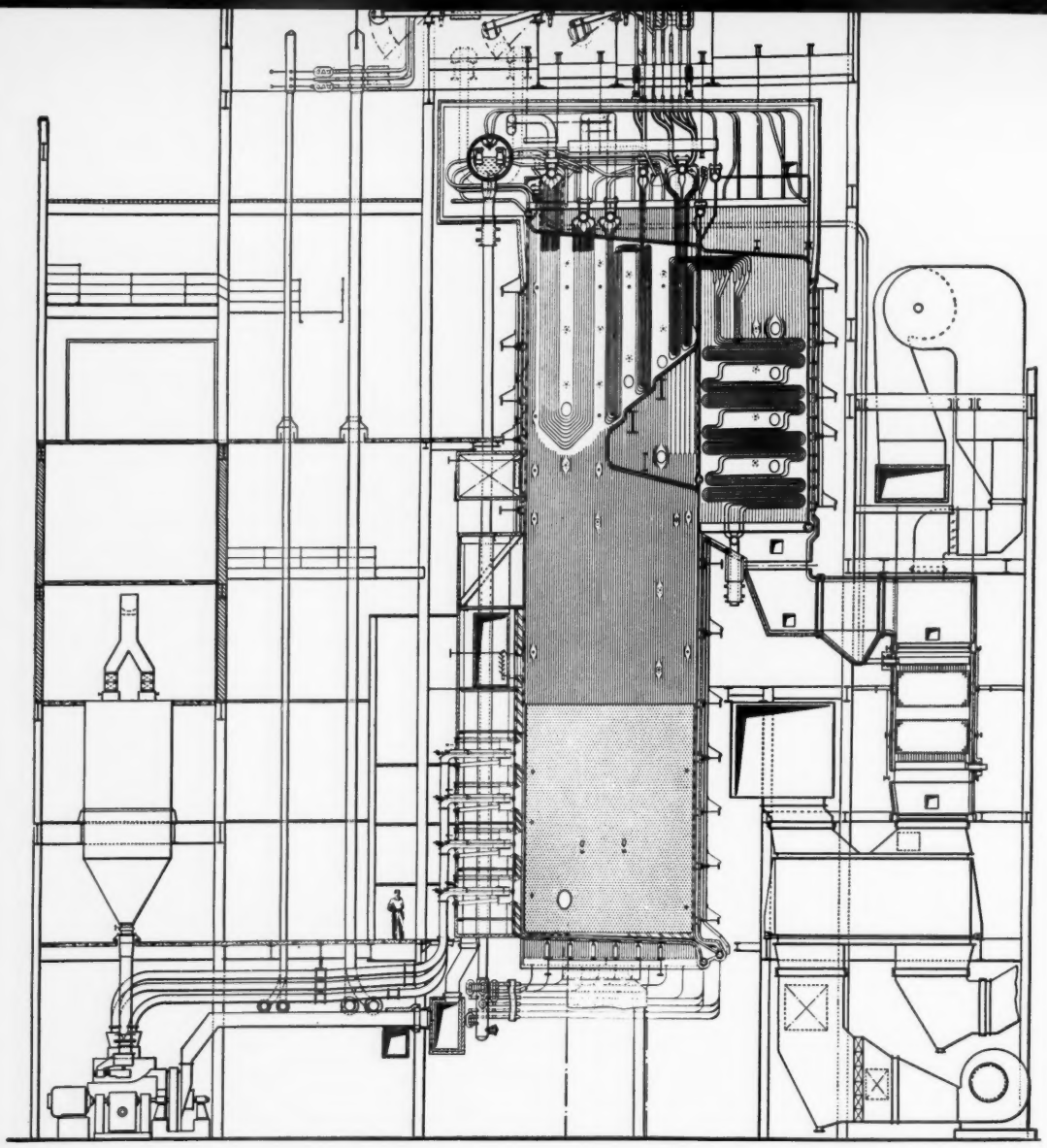

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Southern California Edison Co.	Huntington Beach	2	2700	2400	1050	1000	400,000
Virginia Electric & Power Co.	Bremo	1	2700	2400	1000	1000	150,000
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Memphis Light, Gas & Water Div.	Thos. H. Allen	3	2825	2400	1053	1053	862,500
Detroit Edison Co.	St. Clair	1	2700	2400	1050	1000	325,000
Virginia Electric & Power Co.	Portsmouth	1	2700	2400	1000	1000	150,000
Southern California Edison Co.	Mandalay	2	2700	2400	1050	1000	400,000
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Pages with the Editors

IN this issue we are privileged to present, as is our annual custom for some years, the text of the various speeches and papers delivered at the sessions of the Section of Public Utility Law of the American Bar Association. These sessions, held in conjunction with the eightieth annual meeting of the American Bar Association, may be found of special interest this year because of the added international flavor resulting from the meetings held both in New York city and in London.

BECAUSE of the extent of additional copy resulting from two meeting places instead of one, and the fact that the Section of Public Utility Law also held a joint meeting with the Section of Administrative Law of the American Bar Association, we were not able to include in one issue the text of all of the papers. It does, however, contain the text of those papers presented at the New York city meeting July 11th to 13th.

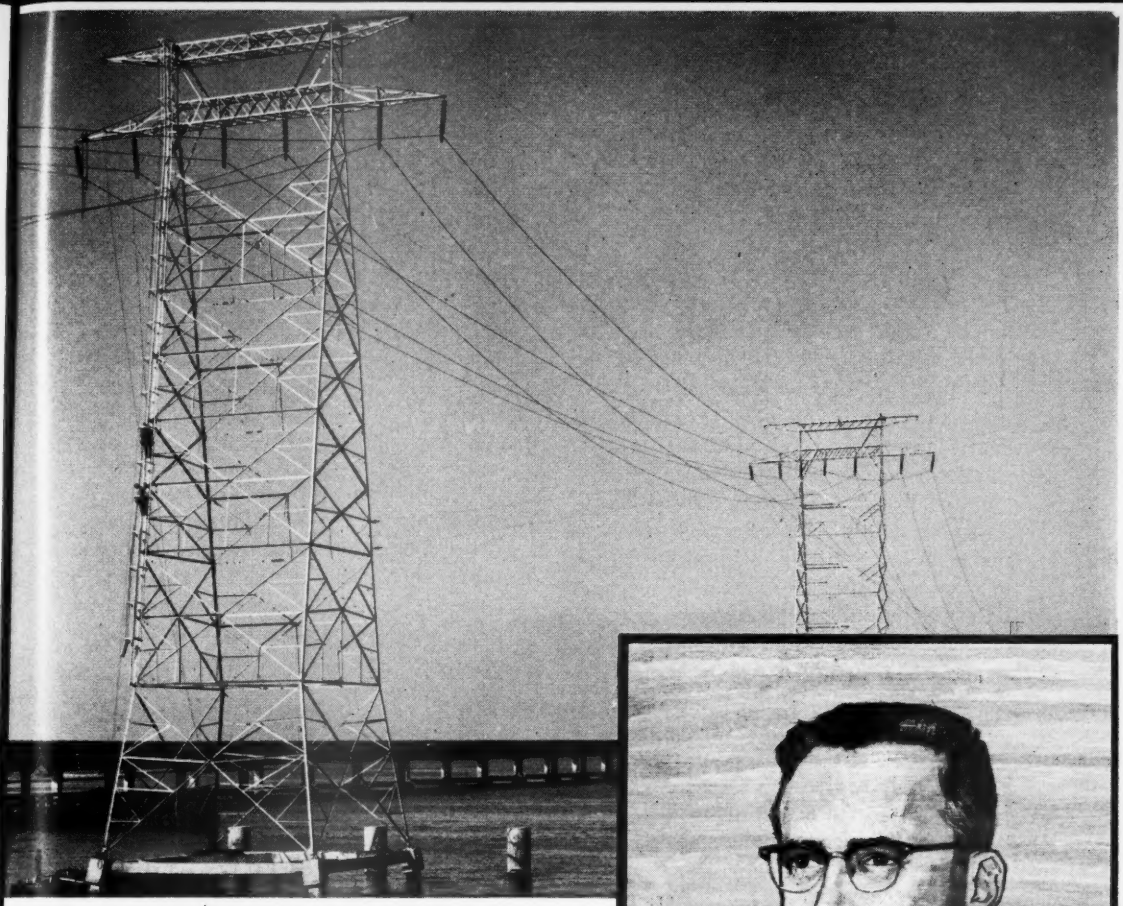
THE text of those addresses presented at the London meeting, which was held considerably later (because of time consumed by the American lawyers in traveling to London), will be subsequently presented in forthcoming issues. It might be said in passing that these London addresses to the Section of Public Utility Law throw light on events leading up to nationalization of both gas and electric industries in Great Britain.

BENNETT L. SMITH

F. WARREN BROOKS

AN amusing side light on this was related in connection with the use by some of the British barristers (in discussing events leading up to gas and electric nationalization) of the words "undertakings" and "undertakers." These words have been traditionally used in British law in connection with local public utility operations and their owners, of which there were a great many before nationalization occurred during the Labor-Socialist régime of former Prime Minister Clement R. Attlee.

ONE American attorney who attended these London sessions relates that when the English lawyers frequently used the word "undertakers," meaning operators of local utility enterprises, there were polite if somewhat suppressed smiles on the faces of some American colleagues. It was not until later that the London barristers learned that American usage of the word "undertakers" is almost exclusively employed for funeral directors. However, the Englishmen passed the incident off with good grace. They pointed



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out that in view of what happened to the properties of the former "undertakers" of British gas and electric utility services, maybe the American usage was somewhat more than coincidental.

IN this issue we have a very thoughtful view by a leading public utility official on the use of accelerated amortization by public utility companies, both from the standpoint of the five-year defense program, and the more general accelerated depreciation allowed to all business corporate taxpayers in the Revenue Act of 1954. This challenging point of view on regulatory treatment of accelerated depreciation comes to us from F. WARREN BROOKS, vice president, finance, The Cleveland Electric Illuminating Company.

MR. BROOKS is a native of Kingsville, Ohio, and a graduate of Case Institute of Technology (BS, '26) and a postgraduate in mechanical engineering of Yale University (MS, '27). Since leaving Yale MR. BROOKS has been employed by The Cleveland Electric Illuminating Company, starting as a junior test engineer, but more recently in charge of rate matters (since 1944). He has been vice president of finance since May, 1953. His major responsibilities are in the areas of accounting, control, rates, forecasts, costs and methods, corporate relations, and treasury. He is the author of numerous papers dealing with the various aspects of rate regulation and depreciation, and has been active in industry committees in those areas.

WILLIAM J. MCKENNA

THE article dealing with the co-operative as a vehicle for power service (beginning on page 442) is admittedly the expression of a point of view which is not shared by everyone, especially those engaged in co-operative utility enterprise. There are those who believe that the co-operative, as far as the American economy is concerned, is a form of business enterprise which ought to be confined to non-profit and noncompetitive operations, chiefly rural, which could not attract or support profitable private enterprise.

THE author of this article, BENNETT L. SMITH, is a Fort Worth attorney who examines the co-op as an instrument for providing the public with electric power. Point by point, the characteristics of the co-op, which set it apart from the business corporate form, are here examined.

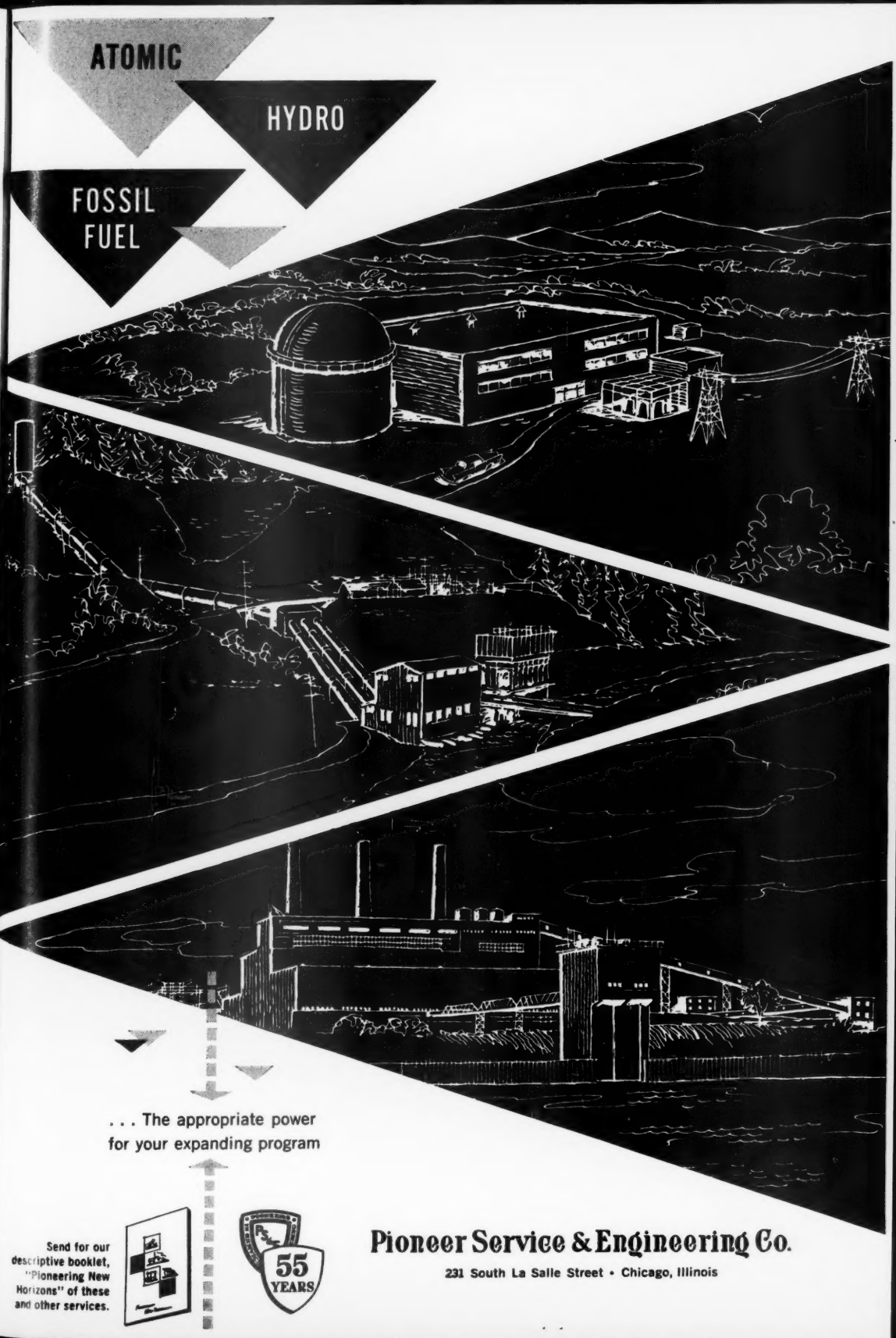
MR. SMITH is a native Texan, educated at the University of Texas (AB, '22; LLB, '26), who has spent thirty years with the Community Public Service Company, of which he is principal attorney and secretary.

* * * *

RECENTLY, at a regional meeting of transit executives, the president of the American Transit Association stated that there is no justification for reduced bus or trolley fares for schoolchildren. While many cities require a school ticket proviso in approved rate schedules of urban transit companies, much evidence is piling up against this form of subsidy. WILLIAM J. MCKENNA, assistant professor of economics, Temple University, Philadelphia, Pennsylvania, in his article beginning on page 451 presents arguments for abolishing this subsidy. MR. MCKENNA examines the pros and cons, concluding that the school fare represents a tax on the transit system for education—a cost which properly belongs in the budget of the political subdivision—not on the transit industry.

THE next number of this magazine will be out October 10th.

The Editors



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THE GAS INDUSTRY: INVENTORY AND OUTLOOK

From the standpoint of plant investment the gas utility and pipeline industry ranks fifth among the largest industries in the United States. The phenomenal growth of this industry over the past decade is to be exceeded only by the accomplishments to be garnered in the years ahead. C. H. Zachry, president of the American Gas Association, as well as president of Southern Union Gas Company, has set down in facts and figures the tremendous potential of the industry for public service in the foreseeable future.

THE BRITISH GAS INDUSTRY—BEFORE AND AFTER NATIONALIZATION

Leslie F. Stemp, legal adviser to The Gas Council, recently addressed members of the international bar on the situation of the gas industry in his country, leading up to the Gas Act which, in 1948, brought nationalization. A résumé of the high points in this history and account of later experiences will be illuminating to many people in the United States. He discloses, among other interesting data, that the nationalized industries of Britain are subject to all the taxes—income, profits, and local—to which private industry is liable.

THE CONSUMER BENEFITS OF NATURAL GAS FOR ELECTRIC GENERATION

The natural gas industry has grown and prospered through interfuel competition. Within the framework of regulation it has endeavored to maintain the vigor and activity which have characterized it from early years. Larry Shomaker, vice president of Northern Natural Gas Company, recounts the position of the industry in the matter of industrial sales—and the consumer advantages of policy geared to maximum service flexibility. He points up the problems posed by end-use control and makes a good case for the benefits which large interruptible loads have provided for the house-heating customer.

MAKING GOOD USE OF NATURAL GAS

Challenges are old and welcome friends to the members and staff of the Gas Appliance Manufacturers Association. The slump in new housing was the inspiration. The keen interfuel competition has provided the spur to the activity of this group. Clifford V. Coons, incoming president of GAMA and executive vice president of Rheem Manufacturing Company, tells in this forthcoming special feature how the versatility of gas, improved appliances and equipment, and popular appeal have given a boost to the industry's outlook.

THE PUBLIC OWNERSHIP MOVE IN NATURAL GAS

The number of municipally owned gas systems across the nation doubled between 1950 and 1957. Government ownership in the gas business is no longer purely an academic topic. It not only exists but appears to be growing. How it happened, what's being done about it, and what it portends are some of the questions answered in this forthcoming feature by Frank C. Sullivan, public relations director of Southern California Gas Company and the chairman of AGA's public relations committee for the new year.

THE HARRIS-O'HARA GAS BILL—BOON OR BONANZA?

The natural gas bill, a proposed amendment to the Natural Gas Act to free producers from Federal Power Commission regulation, is before the House of Representatives. Assuming the success of the legislation in the second session of the 85th Congress, Willard F. Stanley, president, Corporate Services, Inc., endeavors to establish how this amendment will affect the producers and the consumers. In his view the legislation can be ameliorated so that it will be less of a bonanza to the producers and more of a boon to the consumers.

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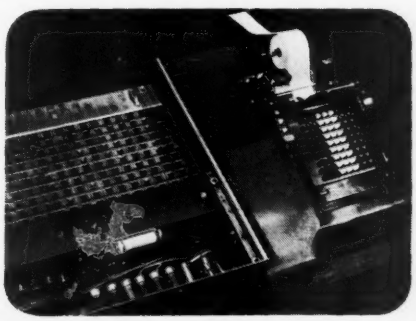

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Director, College of Business Administration, Pennsylvania State University.

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"In the physical sciences we can build laboratories for all manner of research under controlled conditions. In human relations we have not progressed that far. There are still so many unknown and uncontrollable variables in human beings that a science of human relations is still among the imponderables."

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GEORGE E. SOKOLSKY
Columnist.

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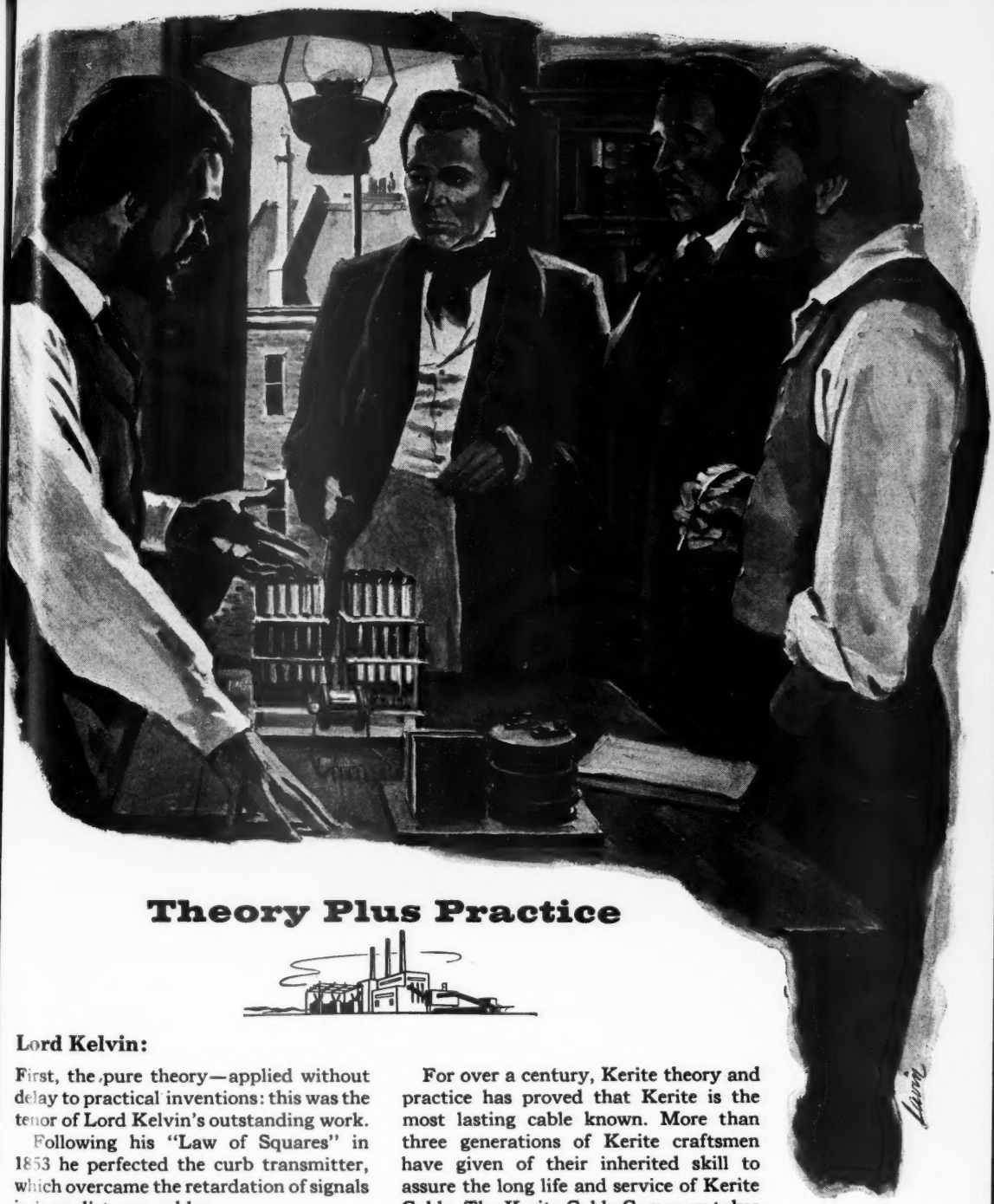

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Cleveland Electric Illuminating Company
Commonwealth Edison Company
Consumers Power Company
Detroit Edison Company
Duke Power Company
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Illinois Power Company
Kansai Electric Power Company
Kansas City Power & Light Company
Kansas Power & Light Company
Niagara Mohawk Power Corporation
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South Carolina Electric & Gas Company
Tennessee Valley Authority
Virginia Electric & Power Company
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Central Illinois Public Service Co.	Meredosia	1	200,000
Consolidated Edison Co. of New York	Astoria	1	340,000
Florida Power & Light Co.	Port Everglades	2	240,000
Pennsylvania Power & Light Co.	(new station)	1	330,000

The *repeat order* list opposite reveals the nationwide acceptance of the C-E Controlled Circulation Boiler. The rapidly growing preference for this boiler is the result of its outstanding performance record, particularly with respect to high availability, and the widespread recognition of its special suitability for high pressures. This preference is particularly notable in the 2400-lb pressure range where the C-E Controlled Circulation Boiler leads the field by a wide margin with 36 units installed or on order for a total capacity of 6,600,000 kw.

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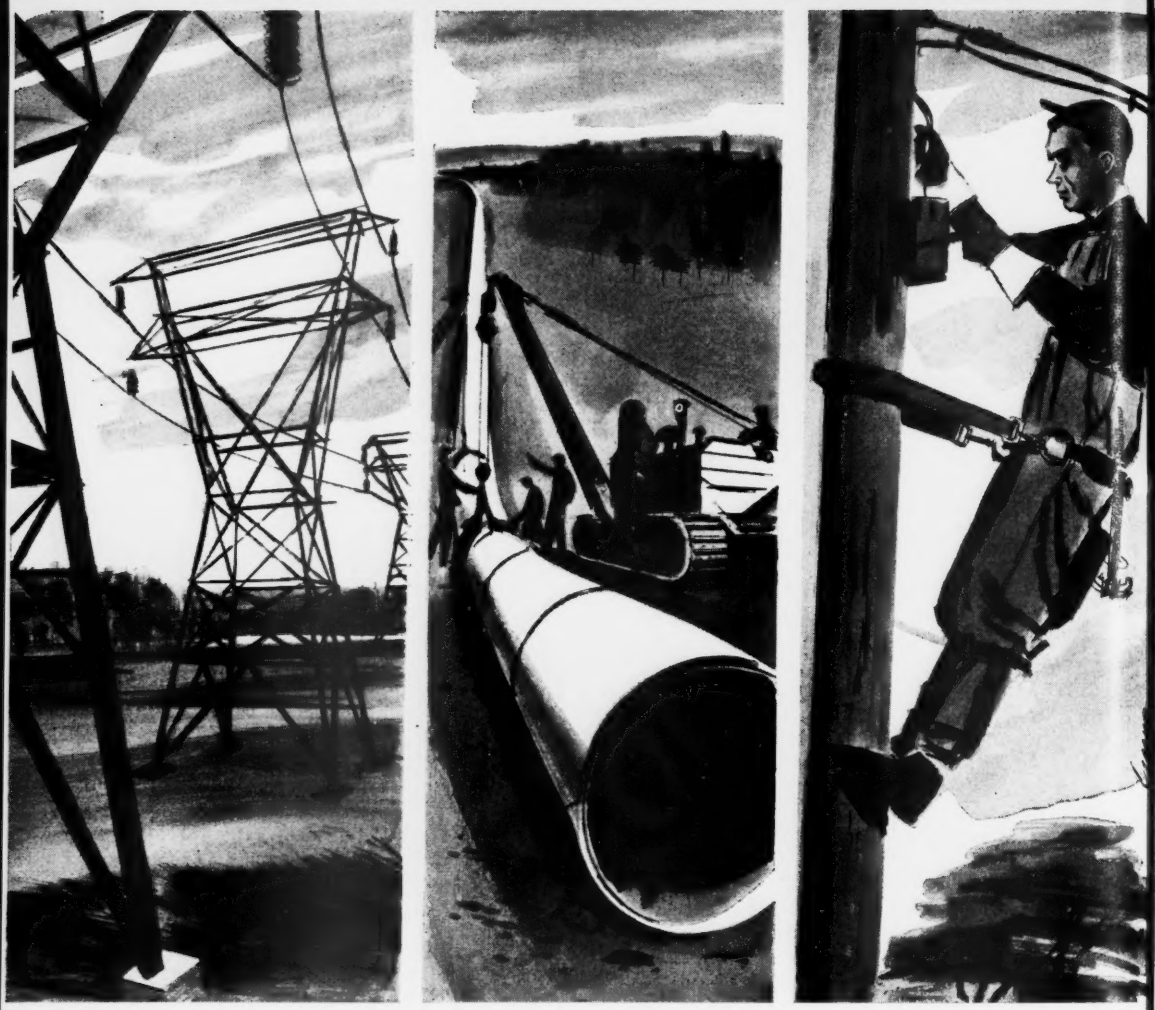

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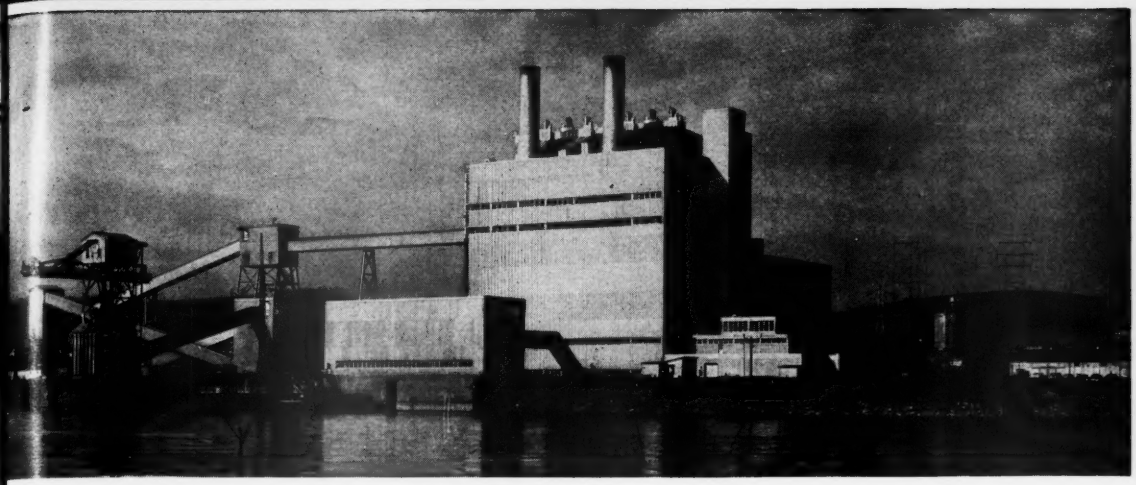

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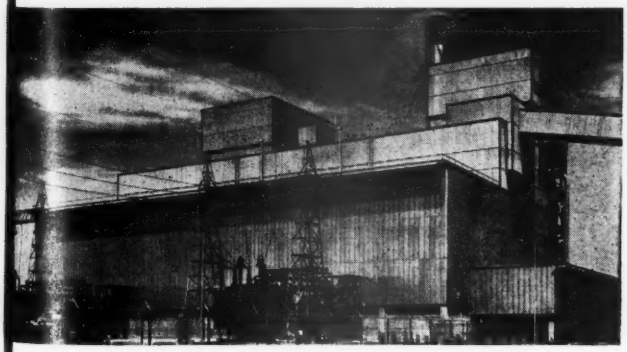
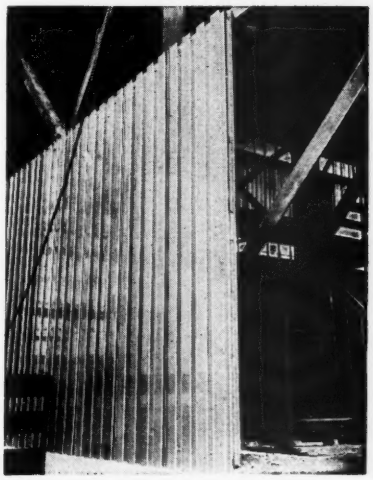


Q-Panel walls grace the new Elrama Power Plant (above) near Pittsburgh. It was designed by Duquesne Light Company's Engineering and Construction Department. The Dravo Corporation was General Contractor.



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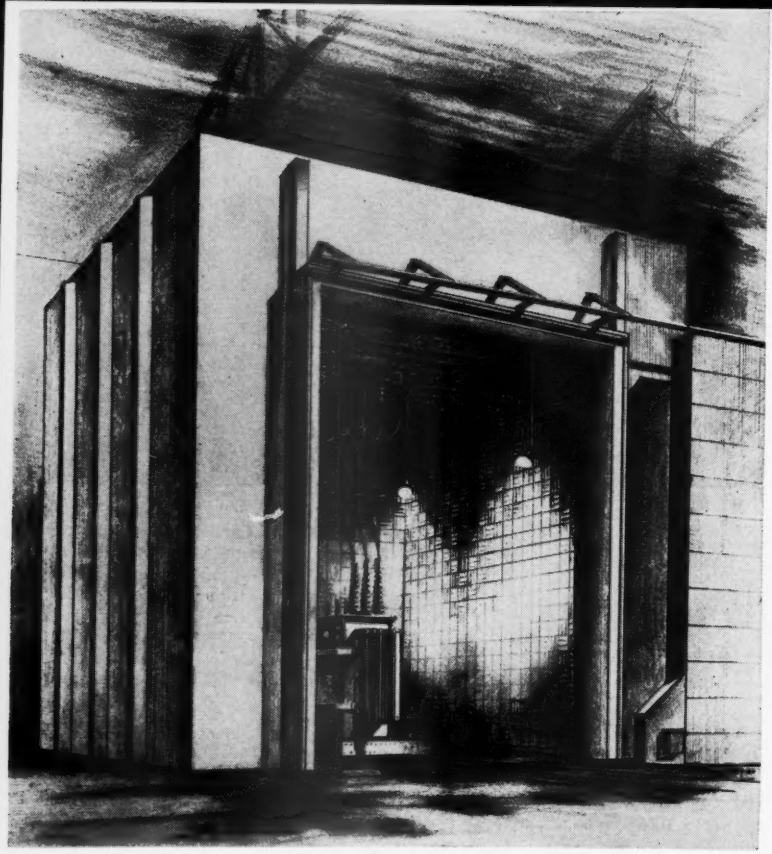

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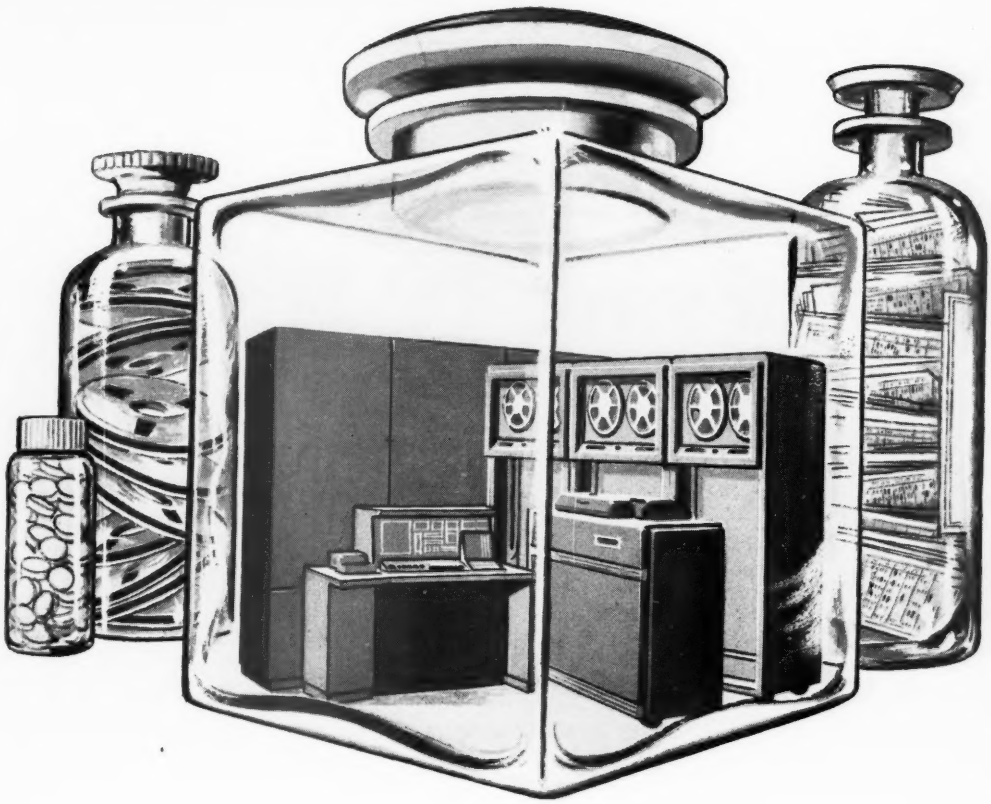

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Top horsepower only part of work-power featured by New Power Giant trucks . . .

How Chrysler Engineering Tailors Power To Job Needs

by Jim Byers

Horsepower makes headlines . . . and justly so. However, power has to be matched properly to the work requirements of a truck if its full advantages are to be realized.

Today, the most powerful trucks of the three low-priced makes are the new Dodge *Power Giants*. And Chrysler engineers are quick to point out that this top power is individually tailored to provide each *Power Giant* engine with the most desirable power reserve for the types of work that engine will have to perform.

Extra horsepower in a truck engine offers two important advantages. First, of course, more power is available for the job—whatever it may be. Second, engine strain in handling the extra work of starting, climbing, or passing under heavy load is reduced. However, these major advantages can be lost or reduced considerably if fuel costs are so high that the extra power isn't worthwhile, or if individual engine components are not built strong enough to maintain the power potential of the engine. Based on this yardstick, Chrysler engineers have good reason for claiming their new *Power Giant* engines are outstanding.

Take economy. The new *Power Giant* V-8 engines feature the radically different Power-Dome combustion-chamber design. This advanced design substitutes a dome-shaped combustion chamber for the old-fashioned wedge-shaped chamber. The dome has no corners or pockets where carbon can collect to rob the engine of its power. The spark plug is centrally located at the top of the dome, and larger valves, placed on opposing sides, are utilized. The result is much more efficient fuel combustion. Better still, this more complete burning of fuel produces full high-compression power on *regular gasoline*.

Testing its strength on the Chrysler proving grounds, this Dodge *Power Giant* C700 C.O.E. model, with 216-hp. engine, makes child's play out of climbing a 32% test-grade.

Dodge also makes certain that *Power Giant* owners will get the kind of continued power performance they expect, by scaling the strength of engine components to the work and power load each engine is designed to handle. For example, in normal duty, the *Power Giant* 204-hp., 314.61 cu.-in. V-8 gives you a basic engine especially suited for high performance in low-tonnage models. For medium duty in the 11,000- to 18,000-lb. G.V.W. range, the basic engine is designed with extra-rugged components, like a roller-chain camshaft drive, tri-metal connecting rod bearings and a host of similar features. For still heavier hauling, tri-metal main bearings, stellite-faced exhaust valves, and exhaust-valve seat inserts make this engine an even more durable package of power.

All six of the *Power Giant* basic engines offered this year are scaled in strength in this same manner. As a result, the truck purchaser gets the maximum work-power needed in any tonnage classification, combined with maximum operating economy and a minimum of maintenance and down-time problems.

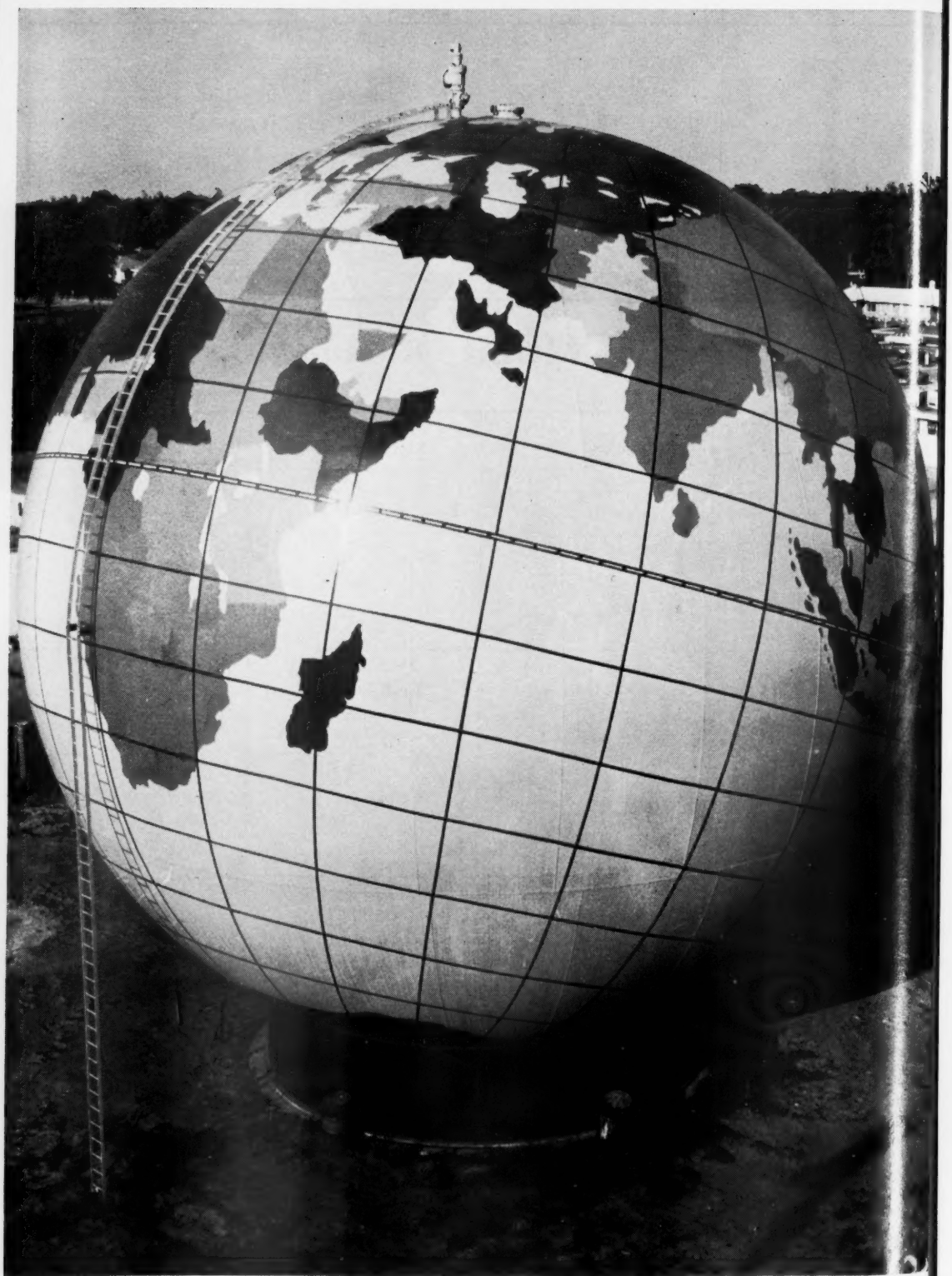
This is the true measure of a truck engine's work-power potential. And it's a sound measure to use as a basis for investigating and comparing truck makes before you invest in additions or replacements to your present fleet.

An advertisement for DODGE TRUCKS . . . the make with The *Forward* Look

UTILITIES *A·l·m·a·n·a·c·k*

SEPTEMBER-OCTOBER

Thursday—26 *Rocky Mountain Electric League will hold annual convention, Colorado Springs, Colo. Oct. 13-17.* ***Advance notice.***	**Friday—27** *American Water Works Association, Michigan Section, ends 3-day annual meeting, Detroit, Mich.*	**Saturday—28** *United States Independent Telephone Association will hold annual convention, Chicago, Ill. Oct. 14-16.* ***Advance notice.***	**Sunday—29** *American Water Works Association, Missouri Section, begins annual meeting, St. Louis, Mo.*
Monday—30 *West Virginia Independent Telephone Association begins annual convention, Davis, W. Va.*	**OCTOBER** **Tuesday—1** *Texas Mid-Continent Oil and Gas Association begins annual meeting, Fort Worth, Tex.*	**Wednesday—2** *Pennsylvania Electric Association begins annual meeting, Philadelphia, Pa.*	**Thursday—3** *North Carolina Independent Telephone Association begins annual convention, Pinehurst, N. C.*
Friday—4 *Indiana Electric Association ends 3-day meeting, French Lick, Ind.*	**Saturday—5** *International Association of Electrical Leagues ends 4-day annual conference, Cincinnati, Ohio.*	**Sunday—6** *National Industrial Conference Board begins atomic energy course for management, Highland Park, Ill.*	**Monday—7** *American Gas Association begins annual convention, St. Louis, Mo.*
Tuesday—8 *Iowa Utilities Association ends 2-day annual management conference, Des Moines, Iowa.*	**Wednesday—9** *National Electronics Conference, Inc., ends 3-day annual meeting, Chicago, Ill.*	**Thursday—10** *California Natural Gasoline Association begins annual fall meeting, Pasadena, Cal.*	**Friday—11** *American Institute of Electrical Engineers ends 5-day fall general meeting, Chicago, Ill.*



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Public Utilities
FORTNIGHTLY

VOL. 60, NO. 7 SEPTEMBER 26, 1957

Accelerated Depreciation

This article examines methods of treating accelerated depreciation for accounting. It is suggested that appropriate regulatory treatment may lie in consideration of the applicable rate of return rather than in adjustment of the rate base.

BY F. WARREN BROOKS*
VICE PRESIDENT, FINANCE, THE CLEVELAND
ELECTRIC ILLUMINATING COMPANY

THE views expressed in this article are strictly my own personal views. Nor is it my purpose to discuss the wisdom of Congress in making provision for accelerated depreciation, either generally or with respect to the utility industry in particular. I think we can accept the fact that accelerated depreciation provisions are now a part of the law. (Editor's note: This was written prior to the recent congressional enactment terminating the defense emergency program for utilities and others not directly engaged in defense production. This does not alter the cogency of the author's remarks with respect to the general accelerated depreciation allowances in the Revenue Act for all tax purposes nor with respect to treatment of defense emergency certificates already awarded to utility taxpayers.) Accordingly, I shall concentrate my attention on an analysis of what benefits, if any,

*For additional personal note, see "Pages with the Editors."

are available, and how best to handle the disposition of the benefits regulatory-wise.

I shall also assume that there is sufficiently general agreement that, accountingwise, normalization of the tax expense in the utility industry is not only acceptable, but, I would go so far as to assume, is the preferred treatment.

Starting from these premises, we ought first to look at the nature of the benefit provided by accelerated depreciation in order to form an opinion as to whether the taking advantage of accelerated depreciation provisions of the Internal Revenue Code should be fostered or discouraged.

As I read the transcripts of the congressional hearings leading to the adoption of these provisions, I think it is clear that Congress intended to provide an incentive particularly for the modernization and expansion of plant. Thus, we should expect to find a benefit of some kind to be available by the taking of accelerated depreciation.

What is this benefit? Under the normalization treatment, there results a temporary provision of capital available for investment in property which does not require the payment of interest as such to anybody for its use. This means a corresponding reduction in the over-all costs of providing utility service during the term that such money is available for investment in expanded or modernized plant.

THE situation I have just described by no means implies that there are zero compensable risks assumed in the investment of such moneys, though free of interest cost as such. Neither should the situation be taken to imply that accelerated depreciation is a tax windfall or a method of obtaining permanent free capital. Eventually the deferred taxes have to be paid, and the interest-free capital ceases to exist. Nevertheless, accelerated depreciation does provide an economic gain when tax deferrals can be invested in earning assets, and the lower costs should be utilized to appropriately benefit all parties at interest.

While we may have problems remaining to be solved in the measurement of amount of reduction in cost of service provided, and problems in the proper division of the benefits of such cost reduction as among the parties at interest—the ratepayers and the owners of the business—I think we can take it as axiomatic that anything which reduces costs of utility service without impairing the quality or reliability of that service is in the direction beneficial to everyone.

Hence, my first conclusion:

> *Conclusion No. 1:* The taking of accelerated depreciation under accounting treatment prescribing normalization of the tax expense produces lower costs of utility service, and as such should be fostered.

IN accepting this conclusion we would have a first test to be applied to various possible regulatory treatments. A regulatory treatment which would foster the taking of accelerated depreciation would meet the test. Conversely, a regulatory treatment which would preclude or discourage the taking of accelerated depreciation would be unsound, since it would deny to any of the parties at interest the realization of benefits otherwise available.

Acceptance of this first conclusion also

provides a twofold clew as to whether it is the rate base or the rate of return side of the regulatory formula to which we should direct our attention, in solving the next problems of measurement and appropriate division of the benefits among the parties at interest.

First clew: It is in the cost-of-capital area from which stems the lower cost of utility service benefits. This in itself suggests that the rate of return area is the more natural and consistent one to explore.

Second clew: We should look carefully at the rate base approach lest the resultant effect be so one-sided as to preclude the sound adoption of accelerated depreciation.

LET us examine this latter possibility a little further. If the entire amount of the accumulated moneys were to be used as a deduction from the rate base, the result would be passing all of the benefits, be they real or inferred, to the ratepayers in the form of lower rates, giving no recognition whatsoever to the added risks assumed by the common stockholders by the investment of such moneys in new and expanded property and plant. In fact, it would be passing to the ratepayer more benefits than actually exist, since proper compensation for risk assumed is one of the true costs of providing utility service. This would certainly preclude sound managements from electing to take advantage of the accelerated depreciation provisions, since they would be putting their stockholders in the position of bearing added risks with no prospect of any compensation for the assumption of such risks. I can think of no rational basis on which to arrive at a proper portion, less than the entire amount of the accumulated funds to be deducted from the rate base, which would result in approximately compensating the equity holders for added risks assumed and allocating the remaining and real benefits as among stockholders and customers. Unless such a rational basis exists that I have not been able to discover, I come to conclusion No. 2, which I would like to present for your consideration:

Conclusion No. 2: Appropriate regulatory treatment lies in consideration of the applicable rate of return rather than in adjustment of the rate base. Otherwise the prospective regulatory treatment would tend to preclude the taking advantage of the opportunity made available by Congress, and there would be no benefits to divide among anybody.

IF we accept this second conclusion, we then come to the problem of how can

¶ *". . . in a situation where there has been a significant amount of capital for investment in property and plant provided as a result of taking advantage of accelerated depreciation provisions, the rate of return should be expected to be somewhat lower than would be applicable to a situation where all of the capital funds had been supplied by the conventional security holders—bonds, preferred, and common."*

the matter be handled appropriately by proper rate of return considerations. I believe there is a very logical basis on which this can be handled.

At this point let me make clear my own conviction that it would be just as wrong to have no portion of the benefit reflected in the form of lower than otherwise necessary rates to consumers, as it would be to translate more than the real benefits into reduced rates and give no recognition to the necessity to compensate stockholders for the added risks they assume on investment of such funds.

The basis on which an equitable measurement and division of the benefits can be made becomes apparent when we examine the composition of rate of return. I believe rate of return is composed basically of three elements: (1) pure interest for the use of money; (2) compensation for risk assumed by the equity owners on investment of moneys in the business; and (3) incentive or reward for efficient management.

To develop this concept just a little, let us consider the three common types of sources of capital investment in the utility business.

First, let us try bonds. The bond interest rate is composed largely of pure interest, but even though secured by a mortgage on the property there is some assumption of risk, and some portion of the bond interest rate reflects compensation for the limited risk assumed. But any time that bonds are sold there is an addition to the risks assumed by the common stockholders, since they must of necessity assume all of the risks inherent in the investment of the moneys in utility property and plant, other than the very limited risks that are borne by the bondholders.

Take next, preferred stock. Here again there is the pure interest component, and a somewhat larger component of compensation for risk, although still limited and less than the full risk incurred by investment of the moneys in the business. Here, again, every time that preferred stock is sold, the common stockholders assume a greater risk than they assumed prior to the sale because they must bear all of the risks except the limited risks assumed by the preferred stockholders.

Of course, it is fundamental to the assumption of risk that the chance of loss is counterbalanced by the chance of gain. Hence the third element in the rate of return formula, "incentive or reward for efficient management," reflects an opportunity for gain which provides the incentive to do an outstanding job in the management of the business for the benefit of everyone.

Let us now examine the situation with which we are confronted when we have funds made available for investment in property and plant, through the adoption of accelerated depreciation provisions in the tax laws. There is no interest cost, as such, associated with the acquisition or use of the funds. Likewise, there is no external party to assume *any* of the risks that are inherent in the investment of the moneys in the business. Thus, upon the investment of such funds all of the risk is assumed by the existing common stockholders. It is a compensable risk and the stockholder should be enabled to be reimbursed for the added risk which he assumes. The over-all risk assumed in in-

Accelerated Depreciation Limitations

"IT is my personal belief that the accelerated depreciation provisions of the 1954 Internal Revenue Act represent a significant step in the right direction. However, these provisions do not go at all to the heart of the basic depreciation problem which is plaguing not only the utility industry, but all industry, and particularly those with heavy plant investment. This problem is that of economic depreciation, which involves recognition of the effect on the adequacy of depreciation provisions of the change in the purchasing power of the dollar which has occurred and gives every promise of continuing to occur for the long term."

vesting these moneys in utility property and plant is no different from the over-all risk of investing any new capital, be it bond money, preferred stock money, or any other money. Moreover, if we are to foster efficient management of such properties as well as other properties, there must be present in the rate of return allowed some recognition of a possible compensation for such achievement.

What all this adds up to is this: That in a situation where there has been a significant amount of capital for investment in property and plant provided as a result of taking advantage of accelerated depreciation provisions, the rate of return should be expected to be somewhat lower than would be applicable to a situation where all of the capital funds had been supplied by the conventional security holders—bonds, preferred, and common.

NOW we come to the problem of how to measure the appropriate differential. If accelerated depreciation provisions continue indefinitely, and are wide-

ly taken advantage of, I believe the market place will provide the means of evaluation of the appropriate differentials to be applied.

The competition for capital should be expected ultimately to force the costs of capital to their proper levels for each situation, and the proper value can thus be ascertained by analysis of the market evidences.

In the meantime, some judgment estimates are available on a pretty rational basis in accordance with the conclusion which I believe would follow, and is presented for your consideration:

> *Conclusion No. 3:* The appropriate rate of return to be applied, when significant amounts of property and plant have been built from accumulated provisions growing out of accelerated depreciation, is something less than that which would otherwise be applicable by an amount sufficient to reflect the absence with respect to such funds of the pure interest component among the various factors making up the over-all rate of return.

This brings us to a consideration of the accounting treatment to be accorded the amounts made available by accelerated depreciation. I have already assumed as a premise to this discussion that normalization is generally agreed upon as the accepted or preferred procedure. So, again, perhaps we can concentrate on the matter of location of credit in the liability side of the balance sheet, on which there is not quite as complete agreement.

THERE are some theorists who advocate crediting the depreciation reserve with such amounts. I believe this is completely unsound, so let us dispose of it first.

Quite apart from the theoretical considerations, in those jurisdictions in which the accumulated depreciation reserve is deducted in the determination of the rate base, making such credits to the depreciation reserve would have the automatic effect of passing more than all of the real benefits from the tax deferrals on to the consumer in the form of unduly reduced rates.

As we have already developed, this could only be expected to result in preclusion of the taking advantage of accelerated depreciation. Companies in such a jurisdiction would be placed at a corresponding competitive disadvantage with respect to other areas. From the practical standpoint, thus, it could not be a sound exercise of regulatory responsibility.

HOWEVER, quite aside from the practical considerations, there is in my judgment no relation whatsoever, theoretical or otherwise, between the tax benefits resulting from accelerated depreciation and the provisions for restoration of the loss due to wear and tear, obsolescence, etc., provision for which costs the reserve is intended to reflect. Moreover, normalizing with the credit to the depreciation reserve would inevitably result in either an excessive or deficient depreciation reserve, unless the tax rate remained constant over the life of the property. This results from the fact that with respect to a given element of property the excess above straight-line depreciation will be balanced by subsequent deficiencies below straight-line depreciation only if the tax rate remains constant. This latter is un-

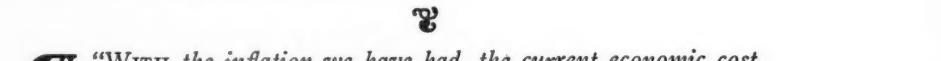
likely; therefore, the practice is so unsound as to be untenable. Furthermore, if the normal depreciation accrual were to be adjusted, the effect would be an unjust shifting of the burden between present and future customers.

In fact, the only argument I have been able to think of which would have any validity in favor of a depreciation reserve credit would be the possibility that in isolated instances this approach could be considered desirable where companies had inadequate depreciation reserves, and this device was used as an artificial means of improving the ratio of the reserve balance to the utility property.

Two other accounting treatments remain as possibilities, and these are the two that have almost universally been prescribed by those commissions which have issued decisions with respect to the matter. First is to credit the accumulations to a restricted surplus account, and the second is to credit the accumulations to a reserve for future federal income taxes. Either of these I believe meets the test of consistency with the principles we have developed and the conclusions I have proposed thus far in this discussion.

If there were a more enlightened practice among investment analysts generally in evaluating credit position, in which appropriate recognition was universally given to the effects on credit position of funds not specifically included in the statement of capitalization in the financial statements, an excellent case could be made for the proposition there was little choice between these alternative possibilities. However, under the existing practices, there is not adequate recognition given universally to the effect on true credit position of any funds which are available for capital investment and which are not specifically included in the financial statements under the heading "capitalization."

Accordingly, and from a practical standpoint, there is a distinct difference between the two accounting treatments. If the credit is made to restricted surplus, the funds are reflected in the statement of capitalization. Being reflected in common equity, where of course they belong if they are to be reflected in the capitalization as such, they permit the addition of a corresponding amount of bonds without distorting capital ratios or changing credit position. On the other hand, if the accumulations are reflected in a restricted tax reserve until such time as it does become universal practice to recognize the



¶ "With *the inflation we have had, the current economic cost of an asset is in excess of its historical cost; yet our present tax laws and accounting practices do not recognize this. Failure to make such recognition results in an understatement of true depreciation costs, overstatement of profits, and overpayment of income taxes. Of at least equal significance, many companies may well be paying out capital in the guise of dividends. In such instances, the assets of the enterprise are slowly but surely being dissipated.*"

effect of such funds on credit position, it is not possible to issue added bonds without distorting capital ratios and lowering the evaluation of credit rating. Hence the selection of the restricted surplus position to reflect the accumulations growing out of accelerated depreciation, by permitting more bonds to be issued for a given credit rating than would otherwise be possible, lowers the over-all cost of capital below that which would prevail with the alternative accounting treatment. Anything which soundly produces lower costs of utility service is obviously to be fostered, since all parties at interest benefit from such reductions in cost.

I RECOGNIZE that some theoretical accountants may argue that the reserve for future federal income tax alternative is perhaps the more consistent with theoretical accounting principles. I think their contention is itself subject to question. Moreover, this is a practical world in which we live; so if the only sacrifice, if any, which would be made by the restricted surplus treatment would be theoretical only, then I believe sound judgment would dictate that we should prefer the demonstrable substantive gain provided by the restricted surplus treatment. Thus, the next conclusion for your consideration would be:

> *Conclusion No. 4:* The accumulation growing out of the taking of accelerated depreciation for tax purposes should preferably be credited to a restricted surplus account, although crediting such accumulations to a reserve for future federal income taxes is an acceptable though somewhat less desirable alternate.

In summary: We have developed herein a basis for the proposition that the benefits of accelerated depreciation are real, that they lower the costs of providing utility service, and, therefore, taking advantage of such provisions should be fostered by management and regulatory commissions alike. I have indicated my belief that the chief problem posed in the regulatory process is one of finding the appropriate means of measuring and dividing the real benefits growing out of accelerated depreciation on an equitable basis between the various parties at interest.

I CANNOT leave this subject of depreciation, without some reference to what I believe is the most vital depreciation problem confronting the industry and the regulatory bodies today. It is my personal belief that the accelerated depreciation provisions of the 1954 Internal Revenue Act represent a significant step in the right direction. However, these provisions do not go at all to the heart of the basic depreciation problem which is plaguing not only the utility industry, but all industry, and particularly those with heavy plant investment.

This problem is that of economic depreciation, which involves recognition of the effect on the adequacy of depreciation provisions of the change in the purchasing power of the dollar which has occurred and gives every promise of continuing to occur for the long term.

The 1954 Internal Revenue Code, while permitting more liberal depreciation, limits the total recovery of depreciable property to its historical cost. Whenever there is a variation in the purchasing power of the dollar, the annual depreciа-

tion allowance based on historical cost does not adequately reflect the true economic cost of the property consumption incurred during the period. This is true because the change in the purchasing power of the dollar has destroyed the relationship between dollar amounts and corresponding amounts of property. With the inflation we have had, the current economic cost of an asset is in excess of its historical cost; yet our present tax laws and accounting practices do not recognize this. Failure to make such recognition results in an understatement of true depreciation costs, overstatement of profits, and overpayment of income taxes. Of at least equal significance, many companies may well be paying out capital in the guise of dividends. In such instances, the assets of the enterprise are slowly but surely being dissipated. Studies which have been made indicate that any electric utility company, for example, currently paying out more than 75 per cent of its reported earnings in dividends may in fact be paying out capital.

OBVIOUSLY, this is a problem which deserves the most careful attention of utility managements and of regulatory bodies alike. There is a growing realization of the reality of the problem and a wider-spread understanding of the facts with regard to what is occurring. Increasing attention is being given to the matter, not only in the utility industry but perhaps even to a greater extent in some other industries.

The steel industry is especially alert to the problem. The United States Steel Corporation, for example, has been particularly active in its expressions on this subject in virtually all media of communication. Its current annual report contains one of the most clear-cut analyses of the problem that I have yet seen.

Freedoms Lost by Socialism

"THE Socialist planners lull the unthinking with the trick question, 'What freedom have you lost?' That's easy to answer. It is my freedom to keep what I earn and spend it as I please. That's the vital distinction between European Socialism and American individualism. 'To have and to hold,' written into millions of title deeds, tells the story of the individual incentives and rewards that have produced America's magnificent achievement.

"A grand strategy for freedom is imperative. We must unite on one point, easily understood, which touches the pocketbook nerve of millions of voters. Intellectual arguments are not enough. You must appeal to the self-interest of millions. We must find the common denominator of mass resistance to Socialism. The common denominator is the pocketbook. On that concept and that alone can we mobilize an army sufficient in numbers to wage successful war.

"We must show millions of voters how they are being hurt—how their security for old age is melting away."

—SAMUEL B. PETTENGILL,
Former U. S. Representative from Indiana.

The Co-op as a Vehicle for Power Service

Is the co-operative corporation a suitable type of organization for electric service to the public? The traditional supplier of electricity in the United States is a regulated public utility which must serve all applicants in the service area at nondiscriminatory rates. A co-operative serves members only, is essentially ownerless, and is potentially an irresponsible organization. The co-operatives usually escape full regulation by regulatory agencies. Is the co-operative, therefore, a suitable vehicle for rendering electric service? This is only one side of a very debatable question.

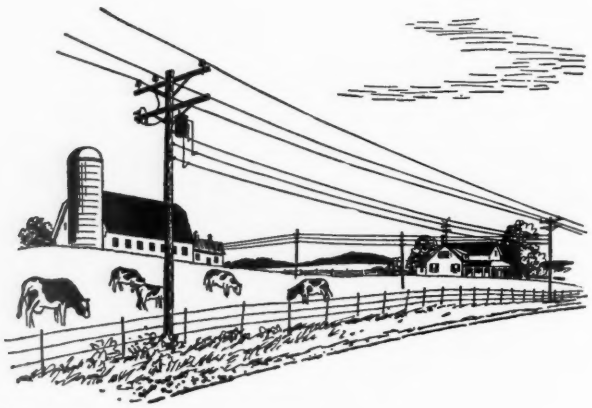
By BENNETT L. SMITH*

A CO-OPERATIVE is an association of individuals who patronize the common enterprise. The group incorporates under state law as a nonprofit co-operative corporation. Although classified by state statutes as a corporation, a co-operative corporation has members, not stockholders. A co-operative limits its patronage to members, and a person does not become a member unless he expects to do business with the co-operative. A stock corporation, by contrast, is not limited to transactions with stockholders, and persons are free to buy stock regardless of whether they expect to be customers.

An investor in a stock corporation may purchase and vote as many available shares of stock as his means and his will permit, but a participant in a co-operative is limited to one membership. A cardinal principle of a co-operative is equality of voting power among members. One vote per member is the inviolable rule.

Equality of prices charged members is another basic principle of co-operatives. Patronage refunds to members are on an equal percentage basis to each member, although the dollar amount increases with

*Attorney, Fort Worth, Texas. For additional personal note, see "Pages with the Editors."



patronage as an incentive to members to do business with the co-operative.

One vote and one price per member, therefore, is the traditional co-operative way.

A co-operative endeavors to conduct its business affairs so that gross receipts exceed expenses. The result is an operating margin. This fund, though distributable to members as a patronage refund, is not regarded by the co-operative as a profit to it. In consumer-type co-operatives, this refund is not considered as profit or income to the members. In producer co-operatives such refund, however, is income to the members.

GOVERNMENT recognizes the nonprofit principle claimed by rural electric co-operatives and rewards them with substantial excise tax exemptions. Organization fees and annual franchise taxes charged by states are nominal for co-operative corporations, regardless of size. This corporate tax immunity is important to electric co-operatives, which, in keeping with the electric industry, require huge amounts of capital. The plant account of the rural electric co-operatives in the United States equaled $2.5 billion in 1955 for about 4,244,000 members, an investment of about $600 per member.[1]

Stock corporations, by contrast, pay state filing fees and franchise taxes graduated upward with amount of capital invested. These corporate taxes are intended to be, and are, revenue producing to the states.

Avoidance of federal and state income taxes by co-operatives is the greatest tax boon of all. Stock corporations in the electric public utility field pay 52 per cent of taxable income to the federal government. Rural electric co-operatives escape that burden entirely.

THE different states assess gross receipts, sales, income, and various other kinds of excise taxes, from which rural electric co-operatives enjoy either substantial exemption or participation on a nominal basis. Stock electric corporations, however, pay their full share of all these taxes.

The table on page 444 compares revenues of the nation's private electric companies and the rural electric co-operatives in 1955 and shows the enormously greater tax burden of the private companies and their customers. Amounts are in millions of dollars.

The private companies in 1955, with 15.4 times as much operating revenue, paid 125.5 times as much in taxes as the rural electric co-operatives. What a disparity of tax burden exists in favor of co-operative members as a discrimination against customers of the private companies!

Co-operatives successfully defend their exemption from income tax by claiming that their excess of operating receipts over expenses is not a profit. When translated into expendable dollars in the hands of the respective co-operatives, what is the difference between the net margin of the co-operatives and the net profits of the corporation? Both funds can and do buy the good things of corporate existence.

CO-OPERATIVES defend all their tax exemptions generally by charging that, after all, the stock corporations pass all taxes on to their customers. And so the stock corporations must do, for the most part, or go out of business. Passing on taxes is not the issue. Tax participation by

the user of a product such as electricity is the true issue. When a member of an electric co-operative pays for electricity, he substantially avoids or escapes from income and other excise taxes as a price additive. The customer of a stock electric corporation pays a rate which includes such taxes. Why should one class of electric users be so favored by government over another? No sound reason can be asserted for such partiality.

Electricity can be generated, transmitted, distributed, and sold by one or more co-operative corporations which avoid income tax and most other excise taxes. To the extent that rates can be reduced by electric co-operatives because of such tax favoritism, more and more persons will escape taxes by becoming members of co-operatives. The result will be a reduction of the tax base and higher taxes for the remaining taxpayers. Social and economic damage will result from the extension of co-operatives into the electric field.

Tax Subsidies

As if tax exemptions were not enough, the federal government extends substantial tax subsidies to rural electric co-operatives. Generous Uncle Sam loans the money at 2 per cent for thirty-five years and waits five years before requiring any payments of principal and interest. The cost of money to the federal government in 1957 is 3⅜ per cent per year, according to the President, and the little E bonds now bear interest at 3¼ per cent per annum. There is thus a direct tax subsidy to the rural electric co-operatives equal to 1⅛ per cent per year, the difference between the loan rate of 2 per cent and the cost of money of 3⅜ per cent. The nation's taxpayers must make up this subsidy.

Loans for rural electrification may total $580 million in the 1957 and 1958 fiscal years.[4] The interest loss on this amount for one year at 1⅛ per cent amounts to $7,975,000 and to $279,125,000 during the 35-year term of the loans. The private utilities are paying from 4½ to 5½ per cent on bonds issued in mid-1957. If the co-operatives should pay 5 per cent on their 1957 and 1958 loans instead of 2 per cent, they would expend $29 million per year for interest instead of $11.6 million, and $1,015,000,000 for the 35-year term instead of $406 million. Although REA loans are subject to annual payments on principal, it is a safe assumption that added borrowing will increase or at least maintain the amount of the original loans for the full 35-year term.

The effect of the subsidy is worsened by the fact that the government lends up to 100 per cent of the cost of co-operative projects. Electric stock corporations have a normal limit of about 60 per cent on their borrowings, and the remaining capital must be obtained from the sale of stock.

The actual debt ratio of the electric

	Gross Operating Revenue or Receipts	*All Taxes*	*Federal Taxes*	*Per Cent of All Taxes to Gross Operating Revenue*
Private Companies[2] ...	$6,911	$1,631	$1,003	23.6
Co-ops[3]	$ 450	$ 13	0	2.9

stock corporations is probably nearer 50 per cent than 60 per cent.

The rural electric co-operatives can borrow all their construction money at 2 per cent from a federal agency under a legislative mandate to make the loans to the extent the Congress appropriates funds from time to time. The stock companies must apply to voluntary lenders for money and pay interest in 1957 at 4½ to 5½ per cent per year.

Nonregulation

ELECTRIC public utility stock companies are limited by law to fair and reasonable rates. The co-operatives are seldom so limited. The co-operatives are required by law to charge minimum rates which will retire debt, pay interest and operating expenses, and create reserves. Some state laws authorize reserves for education in co-operation.[5] It is doubtful that there is any legal maximum whatever on the rates to be charged by co-operatives. The practical ceiling is what the traffic will bear.

Most states have regulatory commissions which regulate electric utility companies as to rates, practices, extension of facilities, and the issuance of securities. In most of the states the rural electric co-operatives are exempt, wholly or substantially, from supervision by public utility commissions and other regulatory agencies. The co-operatives thus usually have all the advantages which go with nonregulation, such as power to charge what the traffic will bear and to extend facilities at will into areas already served with electricity.

With so many privileges from government enjoyed by the rural electric co-operatives how can there be any offsetting disadvantages? That there are some obstacles in the way of co-operatives as purveyors of electricity will now be demonstrated.

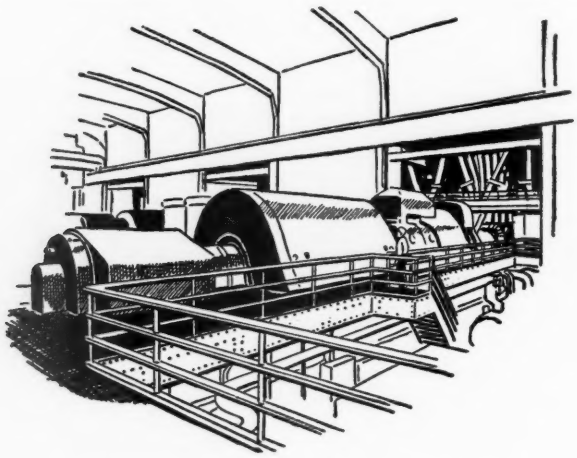
Co-operative Disadvantages

THE handicaps of co-operatives in the electric field include those which are inherent in co-operative organizations and those which result from the privileges extended to rural electric co-operatives. The inherent obstacles relate to membership and uniform prices with attendant irresponsibility. Government favoritism in taxes, tax subsidies, administrative assistance, and full or substantial exemption from regulation should impose limits on extension of co-operatives outside of unserved areas.

Membership

LIMITATION of patronage to members is a basic tenet of the co-operative method. Eligibility for membership must be fixed by statutes or rules binding on the co-operative and the membership alike. Termination of membership ends patronage for both the member and the co-operative. Memberships are normally not transferable by sale or demise. The co-operative and its members have a mutual obligation to do business with each other. A personalized relationship is thus peculiar to co-operatives.

Co-operatives and stock corporations are thus at opposite poles in selectivity and limitation of customers. Co-operatives for this one reason alone are not suitable corporate vehicles for public utility-type service in the electric or any other public utility field. Public utility services and the co-operative method are contradictory. A co-operative cannot be a public utility and



Why Co-ops Have Tax Favors

"GOVERNMENT recognizes the nonprofit principle claimed by rural electric co-operatives and rewards them with substantial excise tax exemptions. Organization fees and annual franchise taxes charged by states are nominal for co-operative corporations, regardless of size. This corporate tax immunity is important to electric co-operatives, which, in keeping with the electric industry, require huge amounts of capital. The plant account of the rural electric co-operatives in the United States equaled $2.5 billion in 1955 for about 4,244,000 members, an investment of about $600 per member."

be faithful to the co-operative code of operation.

STATUTES limiting rural electric co-operatives to service to members have been construed by a number of regulatory commissions and courts to the effect that the co-operatives are not public utilities.[6] A few states, of course, have held to the contrary.[7] The states in which the co-operatives have been given nonutility status are in accord in that respect with co-operative principles.

Uniform Prices

CO-OPERATIVES pride themselves on one price and one vote per member. These twin equalities have been prime co-operative commandments from the Rochdale weavers of 1844 to the present. As an incentive to members, co-operatives commonly pay patronage refunds equal to a uniform percentage of business transacted with members. The percentage of the refund is the same for all members but means more in dollars to the best customer-members.

One price to all is not suitable for public utilities. Rates for utility service must be nondiscriminatory, but that very concept permits and even requires reasonable price variations and classifications of customers and areas. Not every difference in rates charged is an unlawful discrimination.

On the contrary, reasonable rate classification in relation to cost of service may in itself be a form of eliminating unfair discrimination. Utilities can and do offer rates which are of themselves incentives, such as reduction for off-peak use. Variations in load characteristics decide and require rate differences. Urban customers, for example, may pay less per unit of service than rural customers. These are just and proper classifications, the very absence of which might result in discrimination.

THE rural electric co-operatives have found that price differences inherent in the distribution of electricity over wide areas outweigh the co-operative gospel of one price per member. Nor can a rural electric co-operative make up for price inequality and balance the scales by a percentage refund. Electric suppliers reduce unit prices to gain volume and charge large or off-peak or interruptible industries rates which do little more than recover marginal costs. A large, near-cost industry could receive enough patronage refund on a percentage basis to reduce its electric bill to or even below the supplier's cost, whereas farm and other residential users with the highest per unit rates would receive the lowest refunds in dollar amounts. So inequality of prices cannot be removed by patronage refunds.

Rural electric co-operatives can and do vary prices among members; but by doing so, the rural associations discard a fundamental co-operative principle. In this, as in other phases of their activities, the rural electric co-operatives apply the test of expediency. These associations retain or disregard co-operative principles according to their own advantages.

Ownership

AN incorporated electric co-operative, just as any other corporation, holds title to its property. The co-operative is said to be owned by its members. This ownership is extraordinary and substandard. A person becomes a member by joining and complying with eligibility and entrance requirements. A membership terminates by resignation, expulsion, or death, and is nontransferable.[8] Only by dissolution of an electric co-operative can a member realize a capital gain. What is then left after payment of debts is distributed to the existing members.

The owner of stock in a stock corporation, however, can sell and transfer his ownership at will or leave his holdings to his heirs. Termination of stockholder ownership by resignation or expulsion or death is nonexistent.

In a consumer-type co-operative with a small investment in physical property, this odd basis of ownership is, perhaps, of little interest or importance to members or public. When co-operatives engage in the operation of electric facilities, they find, as do the public utilities, that large investment per member or customer is needed. Rural electric co-operatives had a composite plant in service amounting to $2.5 billion as of December 31, 1955. This vast accumulation of wealth built up by the nation's rural electric co-operatives is

ownerless as that term is commonly understood.

THE circumstances of ownership of rural electric co-operatives make for irresponsibility of management, fragmentation of duty of members to the organization, and inclusion of persons indifferent to the welfare of the co-operative but who must join to get electric service. During the first twenty years of their existence, the initial zeal of the founders and supervision by the federal Rural Electrification Administration under loan contracts may have tended to offset these defects of ownership. With passage of time, when initial enthusiasm for co-operative electricity has run its course and when the contractual supervision of the federal agency has expired by repayment of loans, then the forces making for irresponsibility of management will have full sway.

No one member of a large co-operative has any more duty to it than another. The best a member can hope for is a reduction of rates or patronage refund. His only prospect of capital gain is liquidation of the co-operative while he is a member. A man could be a member for thirty-five years in which the federal loan is paid and pay rates sufficiently high for the purpose, and never receive any reward by sale or bequest of his membership. A co-operative could be dissolved immediately after his death with substantial payments to existing members, but the heirs of the previously deceased member would receive nothing. As electric co-operatives become richer in net worth by payment of loans, the disadvantages of their position with respect to ownership will not be lost on the members.

Government Favoritism

THE privileged position of rural electric co-operatives and their members with respect to government favoritism has already been outlined. The initial purpose of the partiality was to bring electricity to unserved rural areas. The farmer was the intended beneficiary of the rural electrification program. The Congress in 1936 did not propose to subsidize those who had or could obtain electricity from privately owned suppliers. No one was to make a dollar out of the federal project.[9]

One who accepts benefits must expect to assume the accompanying burdens. So long as the co-operatives are so privileged by government, they should restrict themselves and be restricted by law to persons in rural areas who do not have central

¶ "INCREASE *of government loans, additions to generating plants and transmission lines, and expansion of co-operatives into nonfarm service and into urban areas all bear witness that the rural electric co-operatives, both simple and super, are favored vehicles for accomplishing public power. Co-operators in the past have held themselves to be an antidote to Socialism by refusing government aid. True co-operatives pride themselves on self-help. The rural electric co-operatives have abandoned the principle of self-help in favor of full financial and administrative assistance from government.*"

station service. If the co-operatives can throw off restraint by competing for customers of a public utility or by entering nonrural areas, they should likewise give up their privileges.

Recent Trends

THE original goal of rural electrification has been all but accomplished with about 95 per cent of the nation's farms electrified. One would suppose that the fulfillment would bring a curtailment of government loans and co-operative expansion. Instead of tapering off, however, government and co-operative activities are accelerating. To the $240 million already allotted for rural electrification during the fiscal year of 1957, the President has authorized an additional $200 million for use in 1957 and 1958. Loans in excess of $580 million are anticipated for the two-year period.[10] This huge sum means generating plants and transmission lines.

It means more and bigger super co-operatives, a holding co-operative system of great wealth and power and one irresponsible and unrestrained. The expansion means aggressive competition for commercial, industrial, and other nonfarm loads in both rural and nonrural areas.

A few examples may illustrate the trend toward nonfarm service and construction of generating plants. A Texas distributor-type co-operative boasts that 60 per cent of its revenue comes from serving oil fields.[11] A rural co-operative serves an 800-unit military housing development in Otero county, New Mexico, and there is not a farm or a farmer in the whole military reservation. A $6 million co-operative steam-generating plant is under construction by a super co-operative near Weatherford, in Parker county, Texas. A $10 million co-operative plant is in prospect at Abilene, in Taylor county, Texas. A super co-operative has a 30,000-kilowatt steam-generating plant at Algodones, New Mexico. One additional 15,000-kilowatt unit is scheduled for installation, and another 15,000-kilowatt unit is likely in the near future.

A GROUP of Indiana rural electric co-operatives applied in May of 1957 to the federal government for a loan of $42 million with which to build a 198,000-kilowatt electric-generating plant, presumably to serve a proposed aluminum plant.[12]

A super co-operative received in 1957 an REA loan of $18,620,000, the largest single loan on record. Twelve million of the loan is allotted to an additional 75,000-kilowatt generator. The enlarged plant will have a capacity of 185,000 kilowatts. High-voltage transmission lines will be increased by 395 miles, in addition to the 2,300 miles already in the system.[13]

Rural electric co-operatives, induced, aided, and abetted by their organized state and national associations, are aggressively seeking legislative action to remove both rural and central station limitations. The move into urban areas is to be achieved by obtaining the statutory privilege of serving areas annexed to municipalities. The central station service limitation would be eliminated in the name of "area coverage." Arkansas, Idaho, New Mexico, North Dakota, Oklahoma, South Carolina, and Texas are among the states in which the co-operatives have recently pressed for "liberalizing" legisla-

tion. In states having territorial certificates of convenience and necessity, the co-operatives would gain the protecting wing of such certificates for entire areas. The Arkansas legislature, for example, in 1957 passed a statute to that effect.

State Socialism

INCREASE of government loans, additions to generating plants and transmission lines, and expansion of co-operatives into nonfarm service and into urban areas all bear witness that the rural electric co-operatives, both simple and super, are favored vehicles for accomplishing public power.

Co-operators in the past have held themselves to be an antidote to Socialism by refusing government aid. True co-operatives pride themselves on self-help. The rural electric co-operatives have abandoned the principle of self-help in favor of full financial and administrative assistance from government. The rural electric co-operatives are, by and to the extent of this metamorphosis, co-operatives in name only and are socialistic in fact. If the trend continues, the co-operatives will increasingly become instruments for achieving state Socialism in the electric field.

THE issue, then, is the old and familiar one of private *versus* government power. There is a secondary issue between the co-operative self-help principle and government aid, between traditional co-operators and those who would use the rural electric co-operatives as instruments for achieving state Socialism.

Footnotes

[1] 1955 Annual Statistical Report of Department of Agriculture, Rural Electrification Administration.

[2] "Government or Company Nuclear Power Development?" by Ernest R. Abrams, PUBLIC UTILITIES FORTNIGHTLY, Vol. 58, No. 5, August 30, 1956, p. 300, 305.

[3] 1955 Annual Statistical Report of Department of Agriculture, Rural Electrification Administration.

[4] *Farm Power*, Ithaca, New York, Vol. 14, No. 6, June, 1957, p. 18.

[5] New Mexico Statutes 1953, § 45-4-20b.

[6] Southwestern States Teleph. Co. *v.* Oklahoma Inter-County Electric Co-operative (Okla 1938) 27 PUR NS 321; Inland Empire Rural Electrification *v.* Department of Public Service (Wash Sup Ct 1939) 30 PUR NS 173, 199 Wash 527, 92 P2d 258; Sutton *v.* Hunziker (Ida Sup Ct 1954) 75 Ida 395, 272 P2d 1012; Clearwater Power Co. *v.* Washington Water Power Co. (Ida Sup Ct 1956) 15 PUR3d 31, 299 P2d 484, and cases there cited; San Miguel Power Asso. *v.* Utah Pub. Service Commission (Utah Sup Ct 1956) 13 PUR3d 127, 292 P2d 511; Re Nafe (Ohio 1953) 4 PUR3d 369; Baker *v.* Lake City Light & P. Co. (Colo 1954) 3 PUR3d 97; and for cases holding telephone membership co-operatives not to be public utilities, and generally, see *PUR Digest*, Public Utilities, § 58.

[7] Harrison Rural Electrification Asso. (W Va 1938) 24 PUR NS 7; State at Inf. of Huffman *v.* Sho-Me Power Co-operative (Mo Sup Ct 1947) 71 PUR NS 234, 356 Mo 832, 204 SW2d 276.

[8] Texas ex rel. Southwestern Gas & Electric Co. et al. *v.* Upshur Rural Electric Co-operative Corp. et al. (Tex Sup Ct 1957) 18 PUR3d 53, 298 SW2d 805.

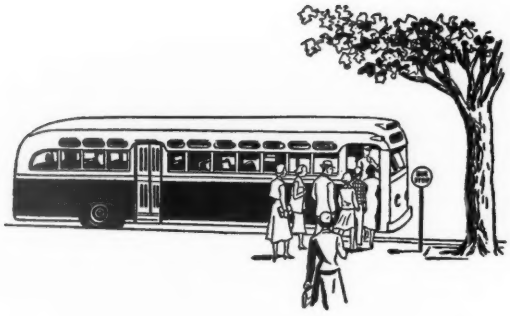
[9] Senator George Norris of Nebraska in *Congressional Record*, Vol. 80, p. 2,826. Senator Norris said: "It (the rural electrification bill) is not to enable anyone to make money out of these public funds, but to get the benefit of electricity and its comforts to people who do not now have those benefits. There is not going to be any profit making out of this."

[10] *Farm Power*, Ithaca, New York, June, 1957, Vol. 14, No. 6, p. 18.

[11] *Texas Co-op Power*, Austin, Texas, June, 1957, Vol. XIII, page 12.

[12] *The Journal of Commerce*, New York, June 7, 1957.

[13] *Farm Power*, Ithaca, New York, May, 1957, Vol. 14, No. 5, p. 18.



School Fares—Whose Subsidy?

Do school fares represent a tax on the transit system for education—a cost which properly belongs in the budget of the political subdivision—not on the transit industry?

By WILLIAM J. McKENNA*

Few industries are plagued with as many problems as the urban transit industry today. This industry has been on a merry-go-round of declining passengers, rising costs, and rising fares for the past twenty years.

Yet, at the same time, the transit industry has assumed another cost: the subsidization of school fares. Most of the school districts in the United States underwrite transportation expense as a part of the general education budget, and in thousands of school districts in the United States the local taxpayers willingly accept this expense as a part of their school tax dollar.

This principle of having the pupils transported to school at the expense of the educational system had also, for many years, been accepted by the large cities of the United States. However, in the last ten years or so there has been an increasing tendency to compel the transit industry in the larger cities to assume the burden of transporting the pupils to school at a rate much lower than that paid by the general rider. This lower school fare has often been forced upon the transit industry by municipal authorities as a concession in order to secure approval of fare increase petitions.

Thus, in 1948 the Philadelphia Transportation Company agreed rather reluctantly, to establish a 7½-cent school fare as a part of a general agreement with the city of Philadelphia in an increased fare proceeding. The Philadelphia Transportation Company had not provided a lower fare for school pupils prior to that date. This school subsidy was accepted by the Philadelphia Transportation Company with the expectation that some degree of stability would be attained in riding level, and in costs in the years ahead. This was

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not realized in Philadelphia. The reverse has been true. The number of riders has decreased from year to year, and the cost of labor and materials has increased year after year. At the same time the number of school fares, at a stable subsidized rate, has increased from 7,748,429 in 1949 to 19,377,709 in 1956. The number of riders traveling under the 6-cent suburban school fare has increased from 389,952 in 1950 to 805,514 in 1956. This has meant a subsidy of $12 million by the Philadelphia Transportation Company (or rather by the nonschool rider) since 1949. This subsidy has occurred in the face of steadily rising fares. The experience of the Philadelphia Transportation Company is not an isolated one. The same pattern of declining riders and rising costs has appeared in every transit company in large cities of the United States. Each of these cities has absorbed an ever-increasing subsidy of the school pupil.

MANY arguments have been advanced in support of the school subsidy by the friends of education. The major arguments include:

Full transit fares are a burden upon parents: This is understandable, but costs of all services are hardships for parents. One might argue that the payment of any school fare is a hardship upon parents, and therefore should be shifted to the local transit company. Yet a shift of this cost to a local transit company is in reality a shift of the cost to all transit riders—those who have school-age children and those who do not. It is axiomatic to state that utility services should be priced upon the user principle. If the cost of a utility service is shifted to other users, then they in effect are paying a higher cost in order to subsidize the user who pays less than the use cost. Transportation of pupils to school is a legitimate education expense and, as such, should properly be borne by the educational system out of general school services. If a municipality wishes the public transit system to subsidize the school pupil, then in all fairness it should advocate adequate nonschool rates to offset this subsidy. An urban transit system might well absorb lower school fares when its passenger total is ever rising, and its costs are relatively stable, but it can hardly absorb these fares when the reverse is true.

Short distance rides: The contention is often made that many school pupils ride for short distances—in some cases only a few blocks. However, in most school districts which provide school transportation at public expense, all schoolchildren who live within a mile or two of the school must walk or secure their own private transportation. When a private urban transit company is compelled to provide transportation for these short riders, it must place in service much additional equipment at what is often an excessive cost. The overcrowding of these transit facilities, even when the pupil rides a short distance, discourages many full-fare passengers from using urban transit.

AFTERNOON *nonpeak-hour use:* Students do not, as a rule, return home in nonpeak hours. If this were so, the lower school fare would provide an increasing return to the urban transit industry. The contrary is, in reality, true. Many students are engaged in various school activities and functions which keep them at school until evening peak hours. This overlap places an additional strain upon

¶ *"Most of the major cities that have local school fares have adopted them not as a sound revenue measure, but because of the pressure of local authorities and school agencies. They have often been forced upon the local transit industry in return for an approval of a rate increase. These pressure tactics are oppressive in character, and are simply a short-run solution. Subsidization of school fares is a social cost theory of rate making. But instead of some agency of a political subdivision underwriting this social cost, the urban transit industry bears the subsidy."*

urban transit facilities that is not compensated for in added revenue.

Low amusement prices for children: Lower prices for children for amusements are predicated upon an entirely different basis than are lower school fares—lower amusement admission prices are intended to create an added demand in periods of very low attendance, or to induce parents to accompany the children at later hours. There is an elasticity of demand in the amusement industry that warrants these lower prices. No great additional expense is incurred by the operation at reduced admission prices.

Reduced *railroad and airplane fares:* This type of fare has not brought substantial business to the railroad industry. It is a fare that was instituted long ago when the railroad passenger business was a profitable enterprise. The reduced railroad fare is also related to securing full-fare travel together with the reduced-fare travel. This is particularly true of the airline passenger business, and it has been valued there because of the net increase in the air passenger business that it has generated. The urban transit industry does not provide half fare for school-age children except under the school subsidy principle. Even the railroads limit half fares to children under twelve years of age.

A lower *school fare attracts additional riders:* This is pure rationalization. Adults do not accompany the children to school. Adults use urban transportation only if it is to their advantage to do so. Again, a school fare subsidy will only reduce standard fares if they provide an additional revenue that more than compensate for the added cost. This has not been true in the case of urban transit.

Establishment of long-term transit habits: This is a gross exaggeration. Adults use urban transportation not because they used it as schoolchildren, but because the service is essential to them, and they have no alternate such as private automobile transportation. In fact, it may well be argued that the conditions of school travel have the reverse effect upon urban transit habits in adult years.

City investment in urban transit: Most cities have a substantial investment in the urban transit system. This is often cited as an argument for reduced school fares. This argument, however, ignores the fact that the urban transit company pays the city a substantial rent for these city-owned facilities and pays the city taxes on its

operating properties. In addition, the city-owned facilities argument ignores the fact that these added transit facilities bring the city greatly increased tax revenues because of the increased property values resulting from the extension of the transit system. It also ignores the many collateral benefits realized by the businesses, industries, and citizens of the city. These benefits, in the aggregative, more than pay the city for the cost of increasing the transit facilities of a city.

MOST of the major cities that have local school fares have adopted them not as a sound revenue measure, but because of the pressure of local authorities and school agencies. They have often been forced upon the local transit industry in return for an approval of a rate increase. These pressure tactics are oppressive in character, and are simply a short-run solution. Subsidization of school fares is a social cost theory of rate making. But instead of some agency of a political subdivision underwriting this social cost, the urban transit industry bears the subsidy.

IF school fares are to be continued in major cities, then it should logically follow that some relief in the form of taxes, rentals, fees, or higher fares be given to the urban transit industry. Otherwise, the ills that confront the industry will be compounded in the future. Political considerations should not dominate the solution of this basic problem of the urban transit industry—for often when politics dominates, sound economic reasoning abdicates.

"THE industrial might of America is not merely some factories, some power plants, some great dams. Those things are important but they depend for their successful operation on a great number of other institutions and skills which have grown up. And that expression 'grown up' is used advisedly because they were not created according to any conscious plan.

"Essential to the American economic life is a vast network of transportation—railways, roads on which trucks, cars, and buses get from here to there, airlines. Those things are not built in a hurry.

"There is in the United States a complex system of communications. This writer can turn in his chair and in a few minutes have San Francisco on the telephone. In a few more minutes, he can be talking to Paris or to London. If at this minute, President Eisenhower makes an important announcement in Washington, it will be recorded on a news printer not 20 feet away seconds after the President made it public. That system is not likely to be developed in a hurry.

"The skills that are required in the management of the great producing units have been a long-time gradual development. They are an accumulation; one generation improved on the methods of the preceding generation and the coming generations are taught to question the methods of their predecessors. That is not something that can be delivered in a neatly wrapped package with a set of rules as to how it can be used. It is something which can be learned only by doing."

—WILLIAM H. GRIMES,
Editor, The Wall Street Journal.

Telephone and Telegraph

First Session Roundup

FROM the standpoint of the telephone industry, the first session of the 85th Congress produced little in the way of significant legislation. A number of measures, however, remained in congressional committees for possible action next year.

On the positive side, only routine measures were enacted. These included the appropriation of $60 million in new lending authority for the Rural Electrification Administration's rural telephone program; the extension of present corporate and excise taxes; and an appropriation of $8.3 million for salaries and expenses of the Federal Communications Commission. This last figure was slightly higher than FCC's appropriation for fiscal 1957—$7,828,000.

Several bills of interest to the industry stand a good chance of enactment during the next session of Congress. The Senate passed a bill, S 2299, to increase the limit for issuing securities without SEC registration from the present $300,000 to $500,000. The bill is now in the House Interstate Commerce Committee. Numerous bills were introduced to eliminate the exemption from the provisions of the Wage-Hour Law of operators in telephone exchanges with 700 stations or less. One bill, introduced by Senator Kennedy (Democrat, Massachusetts), would confine the exemption to operators providing telephone service through a switchboard located in the operator's home. Although representatives of the industry made strenuous pleas for retention of the exemption, there is some likelihood that the exemption will be modified or eliminated next year.

Proposals to raise the interest rate on REA loans to correspond to the interest rate paid by the U. S. Treasury on borrowed money got nowhere at this session and is likely to meet a similar fate next year. Three such measures were introduced, one in the Senate and two in the House, but no hearings were held on any of them. Two bills in the House to prohibit reimbursement to the states of costs incurred in relocating utility facilities under the federal highway program likewise received no formal attention.

ONE interesting measure, introduced by Senator Bricker (Republican, Ohio), was left untouched by the Senate Interstate Commerce Committee. Bricker's bill, S 1571, would amend the Communications Act to provide for penalties for the malicious damage of certain private communication facilities. Although Sena-

tor Bricker did not say so, there was speculation at the time of the bill's introduction that the measure was inspired by the violence and property damage involved in the recent Ohio telephone strike.

Another bill still in the Senate Interstate Commerce Committee was Committee Chairman Magnuson's measure to prohibit the transmission of gambling information in interstate commerce by telephone or telegraph facilities.

Magnuson is also plugging for an investigation of the utilization of radio and television frequencies. A resolution to authorize the investigation was not acted upon. It may be next year, however, particularly if a House committee investigation of regulatory agencies, including the FCC, turns up information to warrant a specialized investigation. The House investigation, to be undertaken by the Subcommittee on Legislative Oversight, is just getting under way. Congress has given the subcommittee $250,000 to cover the activities of all federal regulatory agencies. The subcommittee has announced that the FCC will be its first target.

Subscription TV in Oklahoma

THE nation's first pay-as-you-see television system went into operation this month in Bartlesville, Oklahoma, with both advocates and opponents of subscription TV watching the experiment closely for any developments tending to support their position on the controversial system. Telemovies, as the system is called, will provide subscribers with first-run movies in the subscriber's living room, without commercials and uncut from the standard theater versions. The Bartlesville experiment started off with a showing of "Pajama Game," which opened in New York about the same time.

Exponents of Telemovies explain that the system is not to be confused with toll TV, the proposed transmitting of scrambled pictures of sports events and special television programs across country to be decoded by dropping a coin in a box. It is this system that the Federal Communications Commission is expected to approve for a "trial run."

Video Independent Theatres, Inc., operator of the Bartlesville project, says it holds franchises itself in 35 cities where it may duplicate its project if things go well in Bartlesville. The package of movies offered by the company to its initial subscribers promises 13 first-run movies a month and 17 not-so-recent films. After the first month, which is free for subscribers, the subscription price will be $9.50 per month. Although the company has not indicated how many subscribers have signed up, it says that more than 300 homes in Bartlesville have been wired to receive the first transmission. The company figures it needs some 2,000 subscribers to break even on operating costs. The investment in the Bartlesville project is estimated to be about $300,000.

MECHANICALLY, the Bartlesville system is quite simple. From a remodeled downtown theater building, transmitting equipment sends out a picture "signal" by wire as a motion picture film unreels and the picture is reflected to a transmitting camera by a series of tiny mirrors. The signal is carried to the subscriber's home by wire strung along telephone poles. At each home, an entry wire branches off from the main line in a manner similar to telephone or power lines. Amplifiers are also installed about every 1,500 feet to boost the signal along the line. Inside the home, the wire is attached to the TV set together with a device which permits switching from conventional TV to Telemovies. In wiring to the

set, Telemovies are piped to channel circuits not used locally for TV reception.

So far, reactions to the experiment have been mixed. There are those who think the price is too high because they would not spend $9.50 a month normally on movies. Others think that as few as two good movies a month, brought right into the living room, would be worth the price. People in this group include many who would not go downtown twice a month to see two shows.

Rejuvenation of movie interest by showing films in the viewer's own home on their TV equipment is the prime objective of Telemovies, according to Henry S. Griffing, president of the corporation sponsoring the project. "It is an experiment in merchandising," he said. "If people won't go to the theater, then we'll bring the theater to the people." Movie theater attendance in the Southwest has dropped 40 per cent since 1949, Griffing says, while the number of theater goers across the country has declined 44 per cent in the same time.

Florida-Cuba Radio Link

THE new "over-the-horizon" radio station system, designed to supplement existing deep-sea cables now used for telephone service between Florida and Cuba, went into operation this month. Operation of the system marks the first time facilities have been made available for regular interconnection of Cuban and American television stations and the first time such a system has been utilized for commercial TV.

The 185-mile link between Florida City and Guanabo, Cuba, is a joint undertaking of the Long Lines Department of American Telephone and Telegraph Company and the Radio Corporation of Cuba, a subsidiary of International Telephone & Telegraph Corporation.

Technically known as "tropospheric scatter propagation," the method employed emits large amounts of microwave energy in the direction of the receiving antenna located at a point beyond the horizon. Enough of this energy is collected by the receiver to permit useful and reliable communication.

The system is equipped to carry 36 simultaneous telephone conversations as well as one TV program in each direction. At the present stage of the development, the TV picture is affected adversely for short intervals by atmospheric conditions. The system, however, is a major advance in the technique of transmitting TV between terminals separated by such a large body of water.

THE system works this way: Radio beams are focused, much like the beam of a searchlight, from a 60-foot-square transmitter antenna toward a receiving antenna located below the horizon. With the curvature of the earth blocking a direct path to the receiver, the signals travel outward in the layer of air surrounding the earth which is known as troposphere. There are apparently sufficient irregularities in this air mass to cause some of the energy to be reflected or refracted downward. Only a minute portion of the microwave energy transmitted is received at the distant point, but this small amount is enough to make the system work.

"Over-the-horizon" systems are different from microwave radio relay systems now widely used in this country. With conventional microwave, "line-of-sight" transmission is used and signals are amplified as intermediate stations located about every 30 to 40 miles.

Financial News and Comment

By OWEN ELY

Is the Boom Over?

THE stock market since mid-July has been declining persistently, with the "technical" recovery of late August failing to hold more than a few days. As this is written (September 10th) it looks as though the Dow industrial average—the traditional market yardstick—might be headed for its February low, about 3 per cent below the present level. Rails and utilities already have made new lows for the year. At a recent meeting of the New York Society of Security Analysts, a showing of hands indicated about an equal number of bulls and bears, but two of the three speakers were definitely bearish in their prognostications.

Why the sudden turnabout in sentiment? It seems due mainly to belated recognition of the fact that the Federal Reserve Board is winning its fight to slow down the business boom. Earlier in the summer the view that inflation would continue as a business stimulus still prevailed, but the drastic decline in metal prices—copper in London has declined from about 50 cents last year to 23 cents—has had a sobering effect. Some high-grade metal stocks are now selling at about half their 1956 highs, and Canadian metal shares have been badly shaken.

Now the question arises whether the market is discounting more than a temporary slowdown in government and business expenditures. Thus far, indices of business activity have shown only slight declines. *Business Week's* latest index was the same as a month ago, 144.9, but down 8.0 from early in the year; it has been close to present levels since April. *The New York Times* weekly index for August 31st was 201.8 compared with 204.5 the week before and a high of about 215 in January. The seasonally adjusted FRB index is estimated at 145 for August, down only 1.4 per cent from the year end.

U. S. News and World Report states that factory employment is down 1.5 per cent, with further layoffs threatened in aviation plants due to the stretch-out of defense orders. Home building is down 8.2 per cent though over-all building activity has slowed only 1.5 per cent. The weekly index of electric output declined 2.4 per cent in August, but this

DEPARTMENT INDEX

	Page
Is the Boom Over?	458
Accelerated Depreciation—A Practical Argument against Normalizing Taxes	459
Table—Current Yield Yardsticks	459
August Utility Financing	462
Atomic Power Costs in England	463
Tables—Recent Financial Data on Gas, Telephone, Transit, and Water Stocks	464, 465, 466

may have been largely due to a dip in use of current for air conditioning resulting from the relatively cool summer.

On the other hand, retail trade is holding up very well with a gain of 3.4 per cent since the end of last year. And individuals' cash savings for the first half are reported $8 billion higher, the sharpest rise in a decade. A possible favorable factor at the moment is the sharp September advance in the two Dow-Jones commodity price indexes—spots and futures—following a steady decline in July and August.

While temporarily a depressing stock market factor, checking the inflationary trend in prices and interest rates should be beneficial to the utility companies from an earnings standpoint. Already there is some slight improvement in the bond market and in the reception of new issues. Meanwhile, many utility companies have filed for rate increases to counteract any erosion of earnings due to increased money rates, higher fuel costs, etc. Possibly investors will again turn to utility stocks as "defensive" issues during a business recession.

Accelerated Depreciation—A Practical Argument

THE use of accelerated or rapid depreciation under § 167 of the 1954 Internal Revenue Code by regulated electric and gas utilities results in depreciation deductions of about 40 per cent of cost in the first quarter of the life of the asset and two-thirds of the cost in the first half of the life. One of the basic problems confronting utilities is whether to "normalize" or offset the resulting savings in income taxes (or "tax deferrals" as they are usually termed). This question has been discussed in this department in the July 4th FORTNIGHTLY and in earlier issues.[1]

So far as reports for the calendar year 1956 are concerned, 83 of the larger electric utilities did not report any increased share earnings as the result of accelerated depreciation—a few did not avail themselves of the method and the remainder normalized income taxes, while 14 companies out of 97 did not normalize, allowing the extra earnings to flow through to share earnings, as indicated in the table on page 460.

As the amount of the tax reduction will increase (for most companies) year after year, the discrepancy between the share

[1] The editor is indebted to John L. Liecty, treasurer of Arizona Public Service Company, for calling his attention to the article by Robert Eisner on "Depreciation under the New Tax Law" in the *Harvard Business Review*, which also gives a bibliography of similar articles. Arizona Public Service has prepared statistical studies and charts of a similar nature to those of Consolidated Edison referred to herein.

CURRENT YIELD YARDSTICKS

	Sept. 6, 1957	*1957 Range* High	Low	*1956 Range* High	Low	*1955 Range* High	Low
Utility Bonds—Aaa	4.05%	4.05—3.70%		3.83—3.08%		3.19—2.93%	
Aa	4.09	4.09—3.78		3.87—3.11		3.26—2.99	
A	4.22	4.22—3.92		3.92—3.27		3.36—3.12	
Baa	4.42	4.42—4.23		4.23—3.49		3.51—3.37	
Utility Pfd. Stocks—High-grade	4.90	4.99—4.37		4.68—3.92		3.98—3.89	
—Medium-grade	5.13	5.15—4.76		4.84—4.25		4.32—4.19	
24 Electric Util. Common Stocks	4.99	4.99—4.67		4.87—4.45		4.64—4.32	
30 Gas Utility Common Stocks	4.95	4.95—4.34		4.83—4.30		4.70—4.29	

Source of data, Moody's Service.

earnings of utilities which normalize and those which do not will become more marked as time goes on. This raises a practical problem for utility analysts, as to whether the earnings of these companies should be arbitrarily adjusted for comparison with other utilities, in the tabulation of price-earnings ratios, etc.

As noted in our previous discussion of this topic, those in favor of normalization take the position that (1) setting up an account for deferred taxes is a definite provision for future liabilities (the same as depreciation accruals provide for property retirement at some unspecified future date) and are required to maintain the integrity of the accounts; and (2) from a practical angle, failure to normalize may lead regulatory commissions to consider the reductions as genuine savings, to be included in earnings for the purpose of regulating rates; *i.e.*, the commissions may "give the savings to consumers," which has already happened in several states.

The principal argument advanced by companies which do not normalize is that, from a practical standpoint, there is no real need to set up a reserve simply because rapid depreciation results in tax reductions. While in theory taxes would increase as soon as the depreciation accrual begins to decline, actually new property is being added each year so that in ten or twenty years there would be ten or twenty different series of accruals on properties constructed or acquired in each year. Thus, the fresh tax savings from the addition of new property will more than offset the increased taxes resulting from lower depreciation on the older pieces of property. As long as new plant capacity or replacements accounted for as plant additions proceed on a fairly substantial level there would be no need to set up a reserve. For a utility with rapid growth such as Arizona Public Service, the effect might be more pronounced than for a company with moderate growth such as Consolidated Edison.

However, even Consolidated Edison estimates that there is little likelihood that depreciation for tax purposes will be less under rapid depreciation than it would be under conventional methods of depreciation, and that it will be several decades before rapid depreciation would even decline to the levels of conventional depreciation. The table on page 461

	1956 Share Earnings	*Income Tax Reduction*	
		Amount Per Share	*Per Cent Of Share Earnings*
Connecticut L. & P.	$1.28	$0.11	9%
Hartford Electric Light	4.12	.93*	23*
Central Vermont Public Service	1.21	.07	6
Consolidated Edison	3.20	.20	6
Niagara Mohawk Power	2.13	.11	5
General Public Utilities	3.05	.16	5
New York State E. & G.	3.00	.22	7
Potomac Electric Power	1.54	.04	3
Rockland Light & Power	1.05	.15	14
Arizona Public Service	1.68	.21	13
Utah Power & Light	1.70	.01	1
Montana Power	3.23	.11	3
Pacific P. & L.	2.10	.10	5
Puget Sound P. & L.	1.67	.09	5

*Includes 73 cents reflecting tax savings resulting from accelerated amortization.

shows that for a large utility with plant additions of $80 million per year, it would be at least eighty years before the annual excess of SYD depreciation over straight-line depreciation, with resulting tax savings, would disappear. Therefore, assuming that the present laws will continue in effect, depreciation computed for income tax purposes using rapid depreciation will be greater than depreciation charged in the accounts for an indefinitely remote period of time and no "normalizing" procedure is required.

A possible weakness in this argument is that the present tax provision may not remain unchanged over an 80-year period. Congress has already virtually ended the granting of new certificates for accelerated amortization—an outcome of the political issue over Hell's Canyon and the Idaho Power Company. Three bills were introduced in the House and one in the Senate at the session just ended, relating to proposed changes in accelerated depreciation. The Harris Bill (HR 5824) provided that the depreciation allowances for electric utilities for rate-making purposes should be identical with those used by such companies in computing federal income taxes. If this procedure were adopted in the published accounts it would reduce earnings more than merely normalizing taxes —though it would eliminate the problem of different depreciation accruals for books and income taxes.

REPRESENTATIVE Mills introduced HR 4806 to provide that "the declining balance and certain other methods of depreciation shall be available for income tax

DEMONSTRATION OF THE FINANCIAL ADVANTAGE OF DEPRECIATION ALLOWABLE UNDER SECTION 167(b)(3) OF THE INTERNAL REVENUE ACT OF 1954

Computation of the Annual Depreciation Allowance by the Use of the Straight-line and Sum-of-the-years Digits Methods
Assumed Conditions

Plant Additions — $80 Million Per Year
Plant Retirements — Computed from Standard h 2.5 Curve
Average Service Life — Forty Years

All Figures in Millions of Dollars

			Annual Accruals for Depreciation			*Accumulated*	
No. of Years	*Year*	*Balance of Utility Plant Subject to Section 167(b)(3)*	*S Y D Method*	*Straight-line Method*	*Excess of S Y D Depreciation Over Straight-Line Depreciation*	*Excess of S Y D Depreciation Over Straight-Line Depreciation*	*Accumulated Tax Reduction Estimated at 50% Tax Rate*
1	1954	$ 80	$ 2	$ 1	$ 1	$ 1	—
2	1955	160	6	3	3	4	$ 2
3	1956	240	10	5	5	8	4
4	1957	319	13	7	6	15	7
5	1958	399	17	9	8	22	11
6	1959	478	20	11	9	32	16
7	1960	557	24	13	11	42	21
8	1961	636	27	15	12	54	27
9	1962	714	30	17	13	67	34
10	1963	792	33	19	14	81	41
15	1968	1,177	47	28	18	166	83
20	1973	1,547	58	38	21	265	133
30	1983	2,206	74	54	20	473	237
40	1993	2,701	82	67	15	650	325
50	2003	3,000	84	75	10	771	385
60	2013	3,139	83	78	5	840	420
70	2023	3,186	82	80	2	875	438
80	2033	3,198	81	80	1	892	446

purposes only in the case of property with a useful life of ten years or more. . . ." HR 7682, introduced by Mr. Ullman, provided for amendment of the Federal Power Act so as to normalize taxes, etc., and in the Senate the Magnuson Bill S 2113 was a companion bill. It seems probable, therefore, that next year, with political issues intensified before the election, more may be heard from Congress on the whole question.

Consolidated Edison has commented that "Should present laws be changed, allowable depreciation for federal income tax purposes would be based upon the unrecovered cost spread over the estimated remaining life of plant and would result in lower tax depreciation deductions. If changes were made within a relatively short period of time, the effect upon future income taxes would not be significant, but would become increasingly greater as more time elapsed before such changes in the law were made.

"It is our opinion that considerations relating to future changes in law are purely speculative and that accounting should be based upon existing tax laws rather than upon possibilities of changes at some future time."

AUGUST UTILITY FINANCING

PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	*Amount (Mill.)*	*Description Bonds and Debentures*	*Price To Public*	*Underwriting Spread*	*Offering Yield*	*Aver. Yield For Securities of Similar Quality*	*Moody Rating*	*Success Of Offering*
8/14	$18.0	Northern Sts. Pwr. 1st 5s 1987	100.00	.74C	5.00%	4.25%	Aa	a
8/22	1.6	Caro. Nat. Gas. 1st 6s 1982						
	.8	Do. Sub. S.F. Deb. 6s	164.00	6.55N	—	—	—	a-e
		Do. Common (112,000 shs.)						
8/22	5.0	Iowa So. Utils. 1st 5¾s 1987	100.71	1.58C	5.70	4.55	Baa	a
8/28	60.0	El Paso Nat. Gas 5¼% Conv. (S.F.) Deb. 1977	100.00	N	5.25	4.59	Baa	f
8/28	40.0	So. Cal. Ed. 1st 4⅜s 1982	101.09	.70C	4.80	4.29	Aa	a
8/29	60.0	Pub. Ser. E&G 1st 4⅜s 1987	101.03	.75C	4.81	4.29	Aa	c
		Preferred Stocks						
8/8	6.0	Indianapolis P&L 5.65%	100.00	2N	5.65			a
8/28	10.0	El Paso N.G. 6.40% (S.F.)	100.00	3.25N	6.40			a

N—Negotiated. C—Competitive. a—Reported well received. c—Reported the issue sold slowly. e—Offered in units of $100 bond, $50 debenture, and 7 shares of common stock. f—Offered to stockholders on basis of $100 debenture for each 29 shares. Convertible at 35 through August 31, 1967.

UTILITY NEW MONEY OFFERINGS IN AUGUST, 1957

Electric Companies		
Bonds	—Sold to Public	$123,146,000
	—Sold Privately	120,000,000
Preferred	—Sold to Public	5,880,000
		$249,026,000
Gas Companies		
Bonds	—Sold to Public	$ 2,519,000
	—Offered to Stockholders	59,237,000
Preferred	—Sold to Public	9,675,000
		$ 71,431,000
		$320,457,000

Source, Irving Trust Company.

THUS, there are cogent arguments both for and against normalizing of tax reductions resulting from rapid depreciation. As a practical matter, the issue will probably be solved gradually by the action of state and federal commissions in rate cases, which may supersede accounting orders previously issued. Four states already have acted in rate cases to give the consumer the benefit of tax savings and a fifth (California) seems to be moving in that direction.

The utilities should, however, try to make a strong case for larger depreciation reserves because of the inflation factor which has already raised the cost of replacing some older plant units to over three times the original cost. (See this department, FORTNIGHTLY, May 23rd and August 29th issues.)

It would seem worth while for some representative group in the industry, such as a joint EEI-AGA committee, to make an intensive study of (1) the inflation problem in relation to depreciation reserves, and (2) the variations in accounting methods by different companies and for different purposes. While the new depreciation methods help to build up a bigger interim reserve on the income tax books, they do not really solve the inflation problem. If the principle of relating depreciation to *replacement* cost was generally recognized—in tax accounting, rate accounting, and stockholder accounting—it might help to normalize the whole problem of depreciation and taxes, and strengthen the balance sheet position.

Atomic Power Costs In England

THE *Financial Times* of England on July 1st published an "Annual Review of British Industry in This Atomic Age"—a 112-page tabloid-size publication containing some 50 scholarly articles on the "Atomic World." Sketches of 12 types of nuclear atomic reactors and a glossary of terms were included. In the article on "Peaceful Applications of Atomic Energy," Sir John Cockcroft gave an interesting résumé on the Calder Hall plant. The first reactor had operated for 90 per cent of the maximum possible time, which was better than anticipated, and it proved sufficiently flexible to meet the operating needs of the electricity "authorities."

Construction has now been initiated on two stations of the CEA at other locations, which will produce nearly 300,000 kilowatts. The new construction program calls for a total capacity of 5-6 million kilowatts by the end of 1965. These stations are expected to operate as base load stations with a load factor of 75 per cent—saving about 18 million tons of coal a year. Capacity of the new units will be increased by raising temperatures and pressures, the same as is being done here with fuel-fired stations. Sir John stated:

> Since there are great economies in the capital cost per kilowatt and since capital costs contribute about two-thirds of the cost of the 1960 stations, nuclear power costs are likely to fall appreciably and will probably fall below parity with power from coal or oil-fired stations by 1965.

THIS seems to indicate that experience with over-all costs is about the same in England as in this country. However, the enriched fuel used in U. S. reactors is about three times more expensive than the natural uranium used at Calder Hall. Corrosion factors are also severe in U. S. reactors, requiring expensive metal treatments. Hence, fuel costs in the U. S. now tend to equal *over-all* cost of power in the United Kingdom, though the former are expected to drop substantially with tech-

nological development. Capital costs per kilowatt are lower in the U. S. than in England, he indicated. Unfortunately, no details were given regarding costs such as taxation, depreciation, return, etc.

However, in another article on "Nuclear Power Plants" S. A. Ghalib, chief engineer of the AEI, presented a chart showing the cost of power based on various assumptions for a 150,000-kilowatt plant. This assumed that natural uranium costs £20,000 per ton and enriched fuel £50,000 per ton. Capital cost worked out at £125 per kilowatt (about $350) for a gas-cooled graphite reactor, or £95 ($265) for a pressurized water-type reactor. Over-all efficiency was estimated at 25 per cent and plant life at twenty years. Interest charges were assumed to be 5½ per cent. With a load factor of 80 per cent, kilowatt-hour send-out cost was estimated at about three-quarters of a pence (8.7 mills in our money) for a "NGR" reactor of the projected Berkeley type and a little over one pence (11.7 mills) for a PWR reactor using 50 per cent enriched fuel.

RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

Annual Rev. (Mill.)			9/4/57 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1951-56	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
		Pipelines									
$ 4	O	Ala.-Tenn. Nat. Gas	19	$1.20	6.3%	$1.42Je	—	14%	13.4	85%	40%
16	O	Commonwealth N. G. ...	34	1.60	4.7	2.92Je	7%	X	11.6	55	39
17	O	E. Tenn. Nat. Gas	9	.60	6.7	.83De	30	X	10.8	72	19
19	O	Gulf Interstate Gas	10	.50	5.0	.77De	—	—	13.0	65	18
71	S	Miss. River Fuel	32	1.60	5.0	2.33De	16	8	13.7	69	50
80	S	Southern Nat. Gas	40	2.00	5.0	2.36Je	NC	4	17.0	85	46
268	O	Tenn. Gas Trans.	30	1.40	4.7	1.77Je	D4	18	17.0	79	20
175	O	Texas East. Trans.	25	1.40	5.6	2.03Je	D7	3	12.3	69	24
71	O	Texas Gas Trans.	22	1.00	4.5	2.17Je	4	4	10.1	46	27
88	O	Transcont. Gas P. L.	18	1.00	5.6	1.55Je	25	19	11.6	65	19
		Averages			5.3%				13.1	70%	
		Integrated Companies									
158	S	American Nat. Gas	53	$2.60	4.9%	$3.88Je	D15%	13%	13.7	67%	35%
50	A	Arkansas-Louis. Gas	25	1.20j	4.8	1.56Ma	14	23	16.0	80	53
47	O	Colo. Interstate Gas	57	1.25	2.2	4.92Ma	D11	36	11.6	25	35
343	S	Columbia Gas System ...	17	1.00	5.9	1.30Je*	D11	7	13.1	77	43
7	O	Commonwealth Gas	7	.10	1.4	.54De	107	D	13.0	19	76
12	S	Consol. Gas Util.	15	.90	6.0	1.35Ap	41	—	11.1	67	61
266	S	Consol. Nat. Gas	42	1.90	4.5	3.51Je	6	4	12.0	54	67
186	S	El Paso Nat. Gas	32	1.30	4.1	2.02Ma	10	7	15.8	64	24
44	S	Equitable Gas	28	1.60	5.7	2.13Je	D11	4	13.2	75	36
17	O	Kansas-Nebr. Nat. Gas ..	35	1.65	4.7	2.58Je	D1	3	13.6	64	30
95	S	Lone Star Gas	32	1.80	5.6	2.40Je	—	5	13.3	73	48
25	S	Montana-Dakota Util. ..	23	1.00	4.3	1.45Je	D3	19	15.9	69	32
23	O	Mountain Fuel Supply ..	24	1.20	5.0	1.68Je	NC	9	14.3	71	57
81	S	National Fuel Gas	18	1.10	6.1	1.43Je	D15	8	12.6	77	62
113	S	Northern Nat. Gas	50	2.60	5.2	3.73Je	10	7	13.4	70	37
43	S	Oklahoma Nat. Gas	26	1.50	5.8	2.07Je	D11	6	12.6	72	29
113	S	Panhandle East. P. L. ...	44	1.80	4.1	2.75De	10	16	16.0	65	35
13	O	Pennsylvania Gas	24	1.20	5.0	2.26De	40	D	10.6	53	64
166	S	Peoples G. L. & Coke ...	41	2.00	4.9	2.90Je	D12	7	14.1	69	42
34	O	Southern Union Gas	26	1.12	4.3	1.52De	D10	9	17.1	74	35
273	S	United Gas Corp.	33	1.50	4.5	2.42Je	—	7	13.6	62	43
		Averages			4.7%				13.7	67%	
		Retail Distributors									
28	A	Alabama Gas	28	$1.60	5.7%	$2.20Je	D10%	31%	12.7	73%	42%

Annual Rev. (Mill.)		(Continued)	9/4/56 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1951-56	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
44	O	Atlanta Gas Light	29	1.60	5.5	1.99Ma	D28	11	14.6	80	36
5	O	Berkshire Gas	16	.90	5.6	1.51My	7	46	10.5	59	35
6	O	Bridgeport Gas	28	1.60	5.7	2.23Je	D16	48**	12.6	72	43
4	O	Brockton-Taunton Gas	14	.90	6.4	1.29De	32	60	10.8	70	40
59	S	Brooklyn Union Gas	35	2.00	5.7	2.70Je	D7	6	13.0	74	49
1	O	Cascade Nat. Gas	7	—	—	Def.De	—	—	—	—	13
36	O	Central El. & Gas	15	.90	6.0	1.58Je	D8	9	9.5	57	17
12	O	Central Indiana Gas	13	.80	6.2	1.04Je	D7	4	12.5	77	65
5	O	Chattanooga Gas	4½	.30	6.7	.37My	D21	14	12.2	81	45
64	O	Gas Service	22	1.36	6.2	1.47Je	D41	0	15.0	95	40
7	O	Hartford Gas	38	2.00	5.3	3.01De	39	5	12.6	66	48
2	O	Haverhill Gas	21	1.32	6.3	2.04Je	15	2	10.3	65	58
31	O	Houston Nat. Gas	37	1.50	4.1	2.26Jy	24	6	16.4	66	22
17	O	Indiana Gas & Water	18	1.00(k)	5.6	1.44Jy	D13	9	12.5	69	45
45	S	Laclede Gas	14	.80	5.7	1.14Je	D10	7	12.3	70	35
4	O	Michigan Gas Util.	19	1.05	5.5	1.31Je	D20	14	14.5	80	38
5	O	Midsouth Gas	11	Stk(o)	—	.65Ap	4	D	16.9	—	39
42	O	Minneapolis Gas	25	1.40	5.6	2.13Jy	D2	14	11.7	66	38
15	O	Miss. Valley Gas	17	1.12	6.6	1.37Je	D31	5	12.4	82	30
4	O	Mobile Gas Service	22	1.00	4.5	1.11Je	D15	D	19.8	90	33
7	O	New Haven Gas	31	1.80	5.8	2.26De	D6	10	13.7	80	66
12	O	New Jersey Nat. Gas	26	1.40(i)	5.4	2.36Ma	12	—	11.0	59	32
80	O	No. Illinois Gas	18	.88	4.9	1.37Jy	D8	—	13.1	64	54
8	O	North Penn Gas	11	1.00	9.0	1.02De	23	7	10.8	98	56
224	S	Pacific Lighting	34	2.00	5.9	2.31Je	D22	14	14.7	87	39
19	O	Pioneer Nat. Gas	26	1.32	5.1	2.02De	15	17	12.9	65	39
13	O	Portland Gas & Coke	15	.60	4.0	1.28Je	19	8	11.7	39	36
2	O	Portland Gas Lt.	9	.75	8.3	.73De	D40	—	12.3	103	25
8	A	Providence Gas	9	.56	6.2	.63De	6	15	14.3	89	60
3	A	Rio Grande Valley Gas	3	.15	5.0	.28De	7	9	10.7	54	58
5	O	So. Atlantic Gas	12	.80	6.7	1.05De	17	2	11.4	76	36
11	O	South Jersey Gas	25	1.40	5.6	2.08Je	D1	28	12.0	67	55
26	S	United Gas Impr.	35	2.00	5.7	2.48Je	3	1	14.1	81	64
48	S	Wash. Gas Light	35	2.00	5.7	2.54Je	D31	4	13.8	79	43
8	O	Wash. Nat. Gas	13	.10(1)	0.8	.38Je	D3	X	—	26	41
7	O	Western Ky. Gas	11	.60	5.5	.72Je	D37	20	15.3	83	38
		Averages			5.7%				13.3	73%	

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER STOCKS

Annual Rev. (Mill.)			9/4/57 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1951-56	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
		Communications Companies									
		Bell System									
$5,825	S	Amer. T. & T. (Cons.)	174	$9.00	5.2%	$13.13*My	—	2%	13.3	68%	67%
274	A	Bell Tel. of Canada	42	2.00	4.8	2.25De	D3%	2	18.7	89	64
43	O	Cin. & Sub. Bell Tel.	79	4.50	5.7	5.58De	2	4	14.2	81	100
209	A	Mountain Sts. T. & T.	117	6.60	5.6	9.36My	7	13	12.5	71	68
308	A	New England T. & T.	134	8.00	6.0	8.40Je	D7	4	16.0	95	60
792	S	Pacific T. & T.	118	7.00	5.9	9.08My	2	4	13.0	77	58
98	O	So. New Eng. Tel.	38	2.00	5.3	2.19De	13	3	17.3	91	59
		Averages			5.5%				15.0	82%	
		Independents									
5	O	Anglo-Canadian Tel.	32	$ .60	1.9%	$3.22Je	7%	54%	9.9	19%	44%
37	O	British Col. Tel.	43	2.00	4.7	2.72Je	D14	12	15.8	74	38
3	O	Calif. Inter. Tel.	12	.70	5.8	.98Je	8	—	12.3	71	24
15	O	Calif. Water & Tel.	19	1.20	6.3	1.50Je	5	10	12.7	80	42
16	O	Central Telephone	19	1.00m	5.3	1.94My	NC	16	9.8	52	29

Annual Rev. (Mill.)		(Continued)	9/4/56 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1951-56	Price-Earns. Ratio	Div. Pay-out	Approx. Common Stock Equity
4	O	Commonwealth Tel.	15	.80	5.3	1.48Je	NC	—	10.1	54	38
4	O	Florida Telephone	20	.90	4.5	1.11My	NC	D	18.0	81	42
237	S	General Telephone	40	2.00	5.0	3.25Je	NC	32	12.3	62	37
15	O	Hawaiian Telephone	18	1.00	5.6	1.30Jy*	D10	19	13.9	77	42
6	O	Inter-Mountain Tel.	14	.80	5.7	.80De	D16	2	17.5	100	62
22	S	Peninsular Tel.	51	2.00	3.9	2.54Je	26	2	20.1	79	46
21	O	Rochester Tel.	18	1.00	5.6	1.40Je	D2	6	13.0	71	39
3	O	Southeastern Tel.	17	.90	5.3	1.44Ma	4	13	11.8	63	42
9	O	Southwestern St. Tel. ...	19	1.20	6.3	1.67Je	12	4	11.4	67	40
—	O	Tele. Service of Ohio ...	90	1.20	1.3	6.73Je	10	NA	13.4	18	NA
31	O	United Utilities	19	1.20	6.3	1.63De	D5	5	11.7	74	36
13	O	West Coast Tel.	17	1.00	5.9	1.48Je	14	18	11.5	68	41
252	S	Western Union Tel.	18	1.00	5.6	2.21De	5	15	8.1	45	86
		Averages			5.2%				12.9	67%	
		Transit Companies									
19	O	Baltimore Transit	9	$ .50	5.6%	$ .18De	D86%	X	—	278%	28%
13	O	Cincinnati Transit	4	.30	7.5	.48De	41	10%	8.3	63	46
8	O	Dallas Transit	5	.35	7.0	.90De	58	0	5.6	39	54
33	S	Fifth Ave. Coach Lines ..	24	2.50	10.4	3.47De	21	4	6.9	73	63
244	S	Greyhound Corp.	15	1.00	6.7	1.27De	8	—	11.8	79	52
23	O	Los Angeles Transit	17	1.40	8.2	1.23De	30	11	13.8	114	92
26	S	Nat. City Lines	22	2.00	9.0	2.45De	D10	11	9.0	82	94
13	O	Niagara Frontier Trans. .	8	.60	7.5	.28De	D81	—	—	214	82
69	O	Phila. Transit	7	.60	8.6	1.67De	31	8	4.7	36	38
6	O	Rochester Transit	5	.40	8.0	.68De	58	18	7.4	59	41
23	O	St. Louis P. S.	11	1.40	12.7	.69De	1	19	15.9	203	97
15	S	Twin City R. T.	15	1.80	12.0	1.21De	1	D	12.4	149	48
22	O	United Transit	5	.60	12.0	.88De	D15	21	5.7	68	48
		Averages			8.8%				9.3	98%	
		Water Companies									
		Holding Companies									
40	S	American Water Works .	10	$ .60	6.0%	$ .95Je	D10%	6%	10.5	63%	16%
		Operating Companies									
5	O	Bridgeport Hydraulic ...	30	$1.60	5.3%	$2.10De	2%	4%	14.3	76%	58%
13	O	Calif. Water Service	40	2.40	6.0	3.37Jy	20	3	11.9	71	32
4	O	Elizabethtown Water ...	39	1.60	4.1	3.28De	16	31	11.9	49	56
9	S	Hackensack Water	39	2.00	5.1	2.87De	D20	2	13.6	70	37
8	O	Indianapolis Water	18	1.00	5.6	1.42De	D12	17	12.7	70	34
5	O	Jamaica Water	31	2.00	6.5	2.90Je#	7	8	10.7	69	25
4	O	New Haven Water	56	3.00	5.4	2.88De	D13	—	19.4	104	58
2	O	Ohio Water Service	27	1.50	5.6	2.33Je	D13	7	11.6	64	36
8	O	Phila. & Sub. Water	34	.50(e)	1.5	3.25Je	38	3	10.5	15	28
2	O	Plainfield Un. Water ...	58	3.00	5.2	5.04De	D6	5	11.5	60	39
4	O	San Jose Water	42	2.80	6.7	3.65Jy	5	9	11.5	77	45
10	O	Scranton-Springbrook ..	16	.90	5.6	1.51Je	14	8	10.6	60	29
5	O	Southern Calif. Water ..	14	.80	5.7	1.19Je	14	8	11.8	67	34
4	O	W. Va. Water Service ..	19	.68(p)	3.6	1.73Je	1	—	11.0	39	17
		Averages			5.1%				12.4	64%	

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. (e)—Also paid 5 per cent stock dividend December 1, 1956. (i)—Paid 2 per cent stock dividend November 21, 1956. (j)—Paid 10 per cent stock dividend November 21, 1956. (k)—Paid 3 per cent stock dividend December 19, 1956. (l)—One share of Pacific Northwest Pipeline for 70 shares held. (m)—Paid 10 per cent stock dividend January 2, 1957. (o)—Forty per cent stock dividend paid June 14, 1957. (p)—Paid one per cent stock dividend September 25, 1957. NC—Not comparable. NA—Not available. D—Deficit 1951. *On average shares. **1951 was an abnormally bad year. #—Adjusted to eliminate 37 cents per share of nonrecurring tax savings.

The March of Events

Atomic Study Task Force Organized

A TASK force consisting of a group of scientists and economists has been set up by four companies "to study the technical and economic feasibility" of building a nuclear testing center with private capital. Announcement of this nuclear test center study group was made jointly by the heads of the co-operating companies. They are James F. Clark, president of ACP Industries, Inc.; Edgar F. Kaiser, president of Kaiser Engineers; Courtland S. Gross, president of Lockheed Aircraft Corporation; and K. S. Adams, chairman of Phillips Petroleum Company.

The concept of such a center is in conformance with the desire of the Atomic Energy Commission and the Joint Committee on Atomic Energy to hasten the time when nuclear testing facilities will be built and operated with private capital rather than with government funds, the spokesmen said. They added that services of the test center would be available to government agencies, educational institutions, and both domestic and foreign industrial enterprises.

AEC Licenses Unit

THE Atomic Energy Commission recently issued the first license for a private industrial atomic power plant. The plant is a small-scale reactor built by the General Electric Company at Pleasanton, California. It will provide developmental information for the company and up to 5,000 kilowatts of electricity for customers of the Pacific Gas and Electric Company in the San Francisco area.

The plant is scheduled to begin operations later this year. The commission authorized construction in May, 1956. The operating license is effective until May, 1963.

The reactor is of the boiling water type. A prototype has been turning out electricity for the commission's Argonne National Laboratory south of Chicago since last December.

The cost of the Pleasanton reactor has been estimated at $5 million.

Alabama

Wins Fight to Build Dams

ALABAMA POWER COMPANY early this month won the right to go ahead with plans for a $120 million development of the Coosa river in Alabama and Georgia. The company received a 50-year license for construction of four proposed dams and redevelopment of an existing

dam. The Federal Power Commission OK's the work.

Thomas W. Martin, chairman of the board of the power company, said:

> We are happy to learn the license has been granted. We have not, of course, had the opportunity to read the terms of the license but hope that, after it is received and we have examined it, it will prove to be satisfactory so we can take prompt action toward beginning the project.

The new dams will include the Weiss dam near Centre, Lock 3 dam above Ragland, Kelly Creek dam near Vincent, and Wetumpka dam. To be redeveloped is Lay dam near Columbiana. Its height will be raised.

Ultimate capacity of the new installations is expected to be 421,700 kilowatts.

Michigan

Gas Heat Permits Approved

AN application by Consumers Power Company for permission to connect 20,000 more gas-heating customers in Michigan from its waiting list of 179,000 was approved last month by the state public service commission. The company had explained that purchase of gas in the Overisel fields in Allegan county made it possible to serve the additional customers.

Under the commission's order, the company will start with those who have had their applications for gas heating on file longest. The order also provided that not more than half of the new attachments can be allocated to new construction in any area with the rest for so-called conversion customers.

Nebraska

Public Power Tax Blasted

THE Nebraska Rural Electric Association blasted a proposal that towns impose occupation taxes on public power districts. At its semiannual meeting in Lincoln recently, the group adopted a resolution labeling the idea "unsound and an attack against the whole idea of public power." The principle of taxing a public power district is contrary to the accepted concept of government, it declared.

Consumers Public Power District has announced a program to permit towns to tax power districts. The city of Lincoln already has passed an ordinance calling for the tax. The Lincoln action is expected to be tested in the state courts to determine its legality. If it is in violation of present law, Consumers officials said, they will strive for an amendment to the state Constitution and action by the 1959 legislature.

The strong opposition from the rural districts forecasts the possibility of a major clash between the power groups in the next legislature, it was reported.

New York

Electric Rate Increase Authorized

THE state public service commission last month authorized the Niagara Mohawk Power Corporation to put into effect new rate schedules for electricity throughout its entire territory. The new tariffs will yield the company additional revenue estimated at $8,225,000 annually.

Residential rates in the eastern division (Albany capital district) and in the central division (Syracuse, Utica, Oswego, Watertown areas) will be increased by about ten cents per month for average use. The minimum bill will be increased from the present 75 cents to $1, but the electricity allowed in the minimum will be increased from 15 to 16 kilowatt-hours. In the western division (Buffalo, Niagara Falls, Lackawanna, Batavia, and other communities), the increase for residential consumers will amount to a maximum of $1.36 per month. In that division the minimum monthly charge will be increased from the present 70 cents to $1 per month, but the amount of energy allowed will be increased from 14 to 16 kilowatt-hours.

In the eastern division there are about 272,000 residential consumers. The central division has approximately 279,500. In the western division there are about 350,000 residential customers.

In the eastern and central divisions the larger commercial and industrial users will have increases ranging from less than 2 per cent to about 30 per cent.

Pennsylvania

Commission Grants Rate Increases

THE state public utility commission recently granted Manufacturers Light & Heat Company of Pittsburgh an immediate $1,523,477 annual rate raise to help cover an increase in cost of natural gas it buys from southwestern suppliers.

Bills of 247,000 consumers in 25 counties will be raised 1.9 cents per thousand cubic feet under revised schedules. The increase, to be applied to a $1,596,000 raise in gas costs that went into effect last July 14th, is subject to refunds.

While pipelines supplying Manufacturers raised their wholesale price, the Federal Power Commission was reported to have the increases under review pending a final order. If the FPC ultimately lowers the increases Manufacturers will make corresponding cuts in bills and refund the difference.

The state commission subsequently authorized increases for customers of five western Pennsylvania companies. The increases included Peoples Natural Gas Company, Pittsburgh, $1,242,000; Equitable Gas Company, Pittsburgh, $969,000; North Penn Gas Company, Port Allegany, $230,000; and S. H. Elder Gas Company, Smethport, $8,000.

The state commission said the increased rates were permitted to cover the higher cost of gas bought from pipeline firms which supply gas from the Southwest.

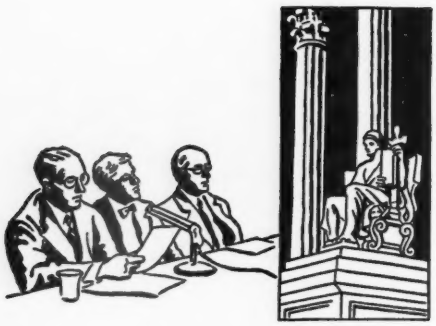
Washington

Gas Rate Increase Authorized

FOUR natural gas distributing companies were authorized by the state public service commission early this month to boost their rates for gas to industrial users approximately 3.8 cents per thousand cubic feet, effective at midnight September 4th. They were Washington Natural Gas Company, Portland Gas & Coke Company, Pacific Natural Gas Company, and Cascade Natural Gas Company.

The application of a fifth company, Spokane Natural Gas Company, for a rate increase was held in abeyance pending further study.

The increases were granted after the commission failed in attempts to prevent Pacific Northwest Pipeline Corporation from putting into effect a similar rate boost on the price of interruptible gas to the distributing companies.



Progress of Regulation

Trends and Topics

Who Should Benefit from Refund

AN ultimate finding that charges collected during rate proceedings were excessive and that refunds must be made to customers raises questions as to a fair distribution of the refund. An exact proration of the total refund in harmony with regulatory principles controlling utility charges presents difficulties. The cost of service to various classes of customers is a factor. There are also questions as to distributors or their customers benefiting from refunds from wholesale suppliers, which subject is not treated in this discussion.

The amount refundable to some customers may be very small in relation to the expense incurred. There may be no satisfactory proof as to who paid what, as in the case of users of telephone coin boxes. These problems arose in two recent decisions, one involving refunds in small amounts, and the other involving coin-box users.

Refund of Small Amounts

The Michigan commission rejected a proposal that the amount of gas relating to customers whose aggregate usage would not produce a refund of 50 cents or more should be deducted from the total quantity of gas for which refunds would be calculated and that the remainder be used as a basis for distribution of refunds. The commission thought that all who had contributed to the payment of excess charges to the supplier should share in refunds. Refund payments should be proportional to each customer's usage in the refund period. Re Michigan Consol. Gas Co. D-3430-57.4, August 5, 1957 (reviewed in PUBLIC UTILITIES FORTNIGHTLY, September 12, 1957, at page 429).

Refund to Coin-box Users

The Tennessee commission, in authorizing an increase in rates subject to a possible refund after court review, adopted a plan to protect coin-box users as well as regular subscribers. The company was required to post a printed notice at each pay station, in plain sight of the users of the service. This would advise them as to the possibility of a refund because of court proceedings and

would advise them that in order to obtain such refunds they should make and retain a memorandum record of such costs to be subsequently presented to the company as a basis of a claim for refund (19 PUR3d 109).

Refund Based on Class of Service

The complexities of cost allocation have found their way into some refund plans. The Arkansas commission, for example, decided that those customers who had contributed most to net profits should receive a greater portion of a refund of excess revenues collected under a rate schedule where certain customers received service at special and not basic or standard rates which were comparatively low and contributed but little, if any, to net profits (46 PUR NS 226). The Missouri commission, in passing upon the question of refunds, excluded customers of the Laclede Gas Company receiving service of an interruptible type known as "dump gas sales." Such sales were on a contract basis at very low prices and were not made under any rate schedule filed with the commission (99 PUR NS 97).

In a proceeding before a federal court it was recognized that certain rates are on a basis which meets competitive conditions in a particular field rather than on a basis related solely to the costs of providing a particular service. The court, after discussing this problem, deemed it equitable to eliminate, so far as practicable, gas sold for industrial and house-heating uses from the basis of the refund. Gas sold at rates available solely to industrial customers was not to be provided for in determining those eligible to the refund. Similarly, gas for heating uses would be largely excluded in determining such eligible customers (47 PUR NS 464).

After remand of a rate order, the Pennsylvania commission first directed Pennsylvania Power & Light Company to pay refunds to all customers except one large industrial customer. Exclusion of this customer had been based upon the fact that it had received service at various delivery points under rates lower than standard system rates. The attention of the commission, however, was directed to the fact that the company would receive service at standard system rates at certain points. The commission referred to a statutory provision that any order awarding a refund shall be made for and on behalf of "all patrons subject to the same rate of the public utility." It then modified its order to provide that this industrial customer should participate in refunds in the same manner as any other large commercial, industrial, or resale customer to the extent that it received service under standard system rates during the refund period (19 PUR3d 159). The commission had discussed this statute in an earlier case involving the Cheltenham & Abington Sewerage Company (63 PUR NS 359). It then declared that in awarding refunds it had the duty to protect all persons subject to the same rate.

A fair and reasonable allocation of the refund of overcharges collected under temporary telephone rates, in the opinion of the Wisconsin commission, could be made to each class of service by applying to the amount refundable at each telephone exchange the percentage distribution of increases under the temporary rates. The amount of refund for each flat rate telephone subscriber

per month could be obtained by dividing the refundable amount for the service classification by the number of subscriber months within that classification during the period in which the temporary rates found to be excessive were in force, and then multiplying the result by the number of months in the period during which the subscriber took service. The proper refund for overcharges collected pursuant to temporary rates for measured service, semipublic service, and PBX trunks was to be based upon a percentage of the subscribers' bills obtained by dividing the total billing within the classification by the total amount refundable for the classification (88 PUR NS 89).

In a telephone case before the Vermont commission, the attorney general and counsel for the state and public asked that refunds be made to noncommercial subscribers and principally to party-line subscribers. The commission refused to approve this method, stating that it had no authority to exclude business users from any refund simply because the cost of telephone service is a proper deduction in computing income taxes (1 PUR3d 33).

Review of Current Cases

Commission Comments upon Investment Bankers' Occupational Proclivities

THE Wisconsin commission in authorizing a telephone company to reduce intrastate toll rates and increase exchange rates, discussed the occupational proclivities of investment bankers who try to convince regulatory commissions that present or prospective stockholders are not receiving a sufficient return on their investment in utility stocks. Despite their forebodings, said the commission, the American public keeps on buying many public utility stocks at yields far below those advocated by the investment bankers.

This has been particularly true of AT&T Company stock, continued the commission, and that situation has prevailed throughout the entire postwar period. Apparently, the investment banker who has a wide familiarity with stock prices and yields, both utility and nonutility, obtains his perspective from the relationship of the stock prices and yields with one another. From time to time he detects varying relationships which cause him to evaluate stocks in terms of competitive relationships.

The commission had no quarrel with this point of view but doubted whether it represented the view of the mass of present and prospective stockholders of AT&T. Whether they are less sophisticated or not as well informed as other investors, or whatever the causes may be, said the commission, they have for many years absorbed all the stock made available by AT&T at terms considerably less favorable to them than the yield advocated by many investment bankers. In simple terms, the market place itself has not as yet accepted the higher yields which many investment bankers have urged to be necessary to maintain the stock in a competitive position with other available stocks.

The principal factor in determining the level of return required is the earnings requirement on common stock, in the commission's opinion.

An over-all return of 6 per cent on an

investment cost rate base was considered reasonable.

Intrastate Toll Rate Reduction

Justification for reducing intrastate toll rates was apparent to the commission. At the present time the company's intrastate toll rates were about 50 per cent above the level of the interstate toll rates. This wide disparity had been a constant source of irritation in the state, had brought about numerous complaints, and had probably operated to retard the use of toll service within the state. The disparity became readily apparent in those situations where a subscriber called a distant out-of-state point at a cost which was less than the charge for a similar call to a nearby point within the state. The disparity reached maximum intensity for conversations extending up to six minutes beyond the initial period of three minutes.

In order to reduce disparity as much as possible, the company proposed major changes in the pricing of telephone toll calls.

The commission concurred. Station-to-station toll calls were placed on a per minute charge basis in recognition of the fact that the costs of setting up the connections for a toll call are relatively constant, and, therefore, account for a larger proportion of the total cost of a short-haul call than for a long-haul call. The commission thought establishment of a per minute rate desirable. In line with obtaining maximum efficiency from the mechanical handling of calls, and in view of the trend towards direct distance dialing, where operator time was required, the schedule provided either for increases in rates or relatively small reductions.

The schedule for person-to-person messages provided for the addition of a fixed charge per message on a graduated basis, increasing as the mileage increased. This was designed to encourage maximum use of station-to-station service.

Collect Call Charge

A new feature of the schedule was the imposition of a collect call charge on all collect calls. Such charge was warranted, thought the commission, under mechanical operations, since operator time was required to obtain acceptance of the call. The commission also approved the adoption of a "family visit calls" plan, a novel discount feature designed to take advantage of the use of mechanical equipment during off-peak hours and at the same time accommodate subscribers who wished to visit for longer periods by telephone if lower rates were available.

Low Return on Intrastate Tolls

The reduction in intrastate toll rates would reduce the rate of return on intrastate operations from 7.16 per cent to 3.07 per cent. Although the commission felt that the proposed reduction in intrastate toll rates was desirable and in the public interest, it was somewhat concerned about the low rate of return produced. Because of the promotional nature of the reduction and the increased mechanization of toll operations, however, it was quite probable that net income under the proposed rates would improve in the near future.

The commission delayed the application of the reduced intrastate toll rates for approximately five weeks. In effect, thought the commission, this would increase net operating income on intrastate toll operations.

Miscellaneous Considerations

A novel but most welcome feature of the case was the lack of any controversy as to a rate base. The rate base proposed by the company included net book investment plus average materials and supplies

on hand, without any allowance for cash working capital, and it accorded with established commission practices.

Private mobile radiotelephone revenues, expenses, rate base, and net operating income were excluded completely. Directory advertising revenues, expenses, and net operating income were included in exchange operations. Charitable contributions were deducted from operating expense. *Re Wisconsin Teleph. Co. 2-U-4710, July 24, 1957.*

Dial Telephone Rate Increase Allowed Despite Subscriber Opposition

THE Missouri commission authorized a rural telephone company which had converted two of its three exchanges to dial service to file increased rates for dial service at those exchanges despite subscriber opposition. The increase asked by the company was $6,030, but the commission authorized only a $5,000 increase. The authorized rates were calculated to yield a return of approximately 6.41 per cent, deemed reasonable by the commission.

The commission concluded that revenues under existing rates would not be sufficient to enable the company to render adequate service, maintain its system, and service its debt. It said that the company should have earnings sufficient to do all of these things and yield a reasonable return upon capital invested by stockholders.

Referring to the many letters protesting against the proposed rate increase, the commission said that if the company had published its proposed rates and informed all the subscribers of the amount of the proposed monthly increases, there might not have been as many petitions filed in protest. It pointed out that some of the subscribers mentioned an increase of $1 per month. Actually the proposed increase was only 25 cents per month for rural residence subscribers and 50 cents per month for urban residential subscribers. The only $1 per month proposed increase was that for urban business service. *Re Cassville Rural Teleph. Co., Inc. Case No. 13,691, August 21, 1957.*

Dividend Yields Considered in Estimating Cost of Capital in Rate Case

THE Pennsylvania commission approved the Johnstown Water Company's proposal to increase rates, but it required elimination of certain discriminatory features from the rate schedule. The proposed rates would yield a return of 4.60 per cent. This was not deemed excessive.

In determining the fair value of the company's property, the commission considered, among other things, original cost and reproduction cost, the latter at the fair average price of materials, property, and labor. It also recognized that the company is a going concern.

Cost of Capital

All of the company's debt and equity is held by Bethlehem Steel Corporation. The commission and the company agreed that a study of cost of capital to the parent company for the purpose of fixing water rates would be unrealistic because the steel company's cost of capital is based

on the greater risks involved in the steel business rather than those of the water company. Therefore, the cost of capital was estimated on the basis of the experience of water companies generally, especially those with publicly held securities.

Dividend Pay-out Ratio

The company did not use evidence of dividend yields for water utility common stocks in determining the cost rate for common equity. It claimed that although the dividend pay-out ratio formerly did have an effect on the price of common stock, this has not been true recently, and investors now value retained earnings as much as they do dividends.

The commission disagreed, saying that it would continue to consider dividend yields as well as earnings-price ratios and the concomitant effect of dividend pay-out, in determining the reasonable cost for common equity capital. It pointed out that it has been recognized generally, on the basis of comprehensive studies by competent investment analysts, that the average investor will pay considerably more for earnings paid to him than for those reinvested for his benefit.

Discrimination Factor

The proposed rate schedule is divided into two systems, a gravity system meter rate applicable to the territory lying in the lower parts of the company's distribution system and a pumping system meter rate applicable to the balance of the system serving areas of higher elevation. In addition to the distribution system used to serve the pumping and gravity systems, additional facilities are used by the company exclusively for serving its pumping system customers; namely, land, power, and pumping structures, electric pumping equipment, and distribution reservoirs and standpipes. The total additional cost of furnishing the company's pumping system customers approximates $137,000 annually.

To ascertain whether the proposed pumping system rates adequately reflect the additional cost of providing service to the pumping system, the commission applied the proposed gravity rates to the use of the water of the customers on the pumping system, resulting in an annual revenue of slightly over $479,000. The application of the proposed pumping rates to the same use of water would result in slightly over $554,000. The difference of about $75,000 represented the additional charge proposed to be applied to the pumping system customers as compared with proposed rates under the gravity system. It was apparent that this difference was far short of the $137,000 additional cost to the company of providing service to the pumping system.

From this comparison the commission concluded that the proposed rates would impose a large segment of pumping system expense upon the customers served from the gravity system and would, consequently, result in unjust discrimination. To eliminate this it prescribed rates that would account for the incremental expense of approximately $137,000 annually. It also prescribed simplification of the company's proposed separate rate schedules by using the proposed blocks for the gravity system in both the gravity and pumping systems. *Pennsylvania Pub. Utility Commission v. Johnstown Water Co. C. 16705, August 5, 1957.*

In a concurrent decision the commission also prescribed higher rates for the Conemaugh & Franklin Water Company, a wholly owned subsidiary of the Johnstown Water Company. It also required elimination of the same discriminatory features from the rate schedule as in the Johnstown case.

Similar rulings were handed down as to measures of value, cost of capital, and fair rate of return. The income available for return under the proposed rates would provide a return of only 3.35 per cent. The commission observed that this return could not be said to be excessive. *Pennsylvania Pub. Utility Commission v. Conemaugh & Franklin Water Co. C. 16706, August 5, 1957.*

"As Paid" Basis Continued Despite Accelerated Depreciation

THE California commission refused to depart from traditional policy in determining a water company's federal income tax operating expense. Although the commission was of the opinion that the determination, in the first instance, of depreciation for federal income tax rested with the taxpayer and was a prerogative of management, the commission continued to allow tax expense on an "as paid" basis irrespective of the method employed for tax purposes.

The commission pointed out that the treatment accorded tax expense in this case should not be taken as a precedent for other cases. Since the establishment of utility rates requires estimates of future revenue and future expenses of operation, including taxes, and a just and reasonable return to the utility, the commission would estimate taxes which would actually be paid for 1957.

The company's application for authority to increase rates was approved. A return of 6.5 per cent was considered reasonable. *Re California Water & Teleph. Co. Decision No. 55359, Application No. 38116, August 5, 1957.*

Natural Gas Rate Increase to Segment of Company-Wide Operation Denied

THE Louisiana commission denied a gas company's application for authority to increase rates in a small segment of over-all operations. The company operated interstate, so it was necessary to allocate costs.

In presenting its claimed cost of service, the company had departed from the past practice of pricing the gas at the wellhead cost of production and had substituted a "fair field" price. That price was based on the average amount per Mcf that the company paid to other producers at the wellhead for gas purchased in the same fields.

Transmission costs had been determined by allocating the company-wide amount of such costs on a demand-commodity basis. Fifty per cent of the costs were allocated on the basis of peak demand in Mcf, and the other 50 per cent of the costs were allocated on the basis of the sales of gas in Mcf. These were merely judgment factors, held the commission, and no reliable justification for their selection existed. The evidence indicated that the production and purchases in Louisiana were far in excess of those in other states where the company operated. The sales, however, presented an entirely different pattern, with the greater part exported to other states.

The commission thought it evident that in the allocation of transmission costs Louisiana consumers located the closest to the source of supply would contribute, in their rates, to the transmission costs for

consumers located in remote areas, unless a distance factor was considered. When transmission costs are allocated on the demand-commodity basis, as here, said the commission, this distance factor is disregarded.

Return on Gas Operation

A rate of return of 5.63 per cent on the over-all operations was considered sufficient to meet the interest and amortization of debt discount and expense and to meet the market demands of the company's investors on the basis of a pay-out ratio of 77 per cent. The above return was for the average over-all operation, including gasoline sales. However, the commission continued, a rate of return for gasoline sales should be higher to some degree than for natural gas sales because of risks involved and market fluctuations. For the natural gas operation a rate of return of something less than 5.63 per cent was considered equitable.

"End Result" Theory Recognized

The commission recognized the "end result" theory propounded by the United States Supreme Court in the Hope Natural Gas case (1944) (320 US 591, 51 PUR NS 193). The company-wide net operating income for the previous year was found more than sufficient to meet the company's needs. In fact, such income was merely twice the indicated earnings requirement under the "end result" theory.

The earnings for the area in question amounted to a small segment of company-wide earnings, pointed out the commission. The proper determination of the results of operations applicable to that small segment became a matter of judgment and, to some extent, guesswork. The previous increase granted nine months before, thought the commission, rendered the present application untimely and premature. Since the company's operating conditions had not deteriorated but, on the contrary, had improved and presently showed earnings above the amounts required, justification for increased rates was not apparent to the commission.

The commission refused to equalize rates between two cities and surrounding areas. Lower rates in the cities were proper, said the commission, because of the distance factor for the transmission of gas, density of population, and other factors which tended to reduce the cost of service. The company was denied permission to raise city rates to the level of rates for towns in surrounding areas. *Ex Parte Arkansas Louisiana Gas Co. No. 6898, Order No. 7215, June 7, 1957.*

FPC Jurisdiction over Wellhead Sales of Gas Upheld

THE court of appeals has upheld a Federal Power Commission order which determined that Deep South Oil Company of Texas is a "natural gas company" within the meaning of the Natural Gas Act and that this producer's wellhead sales of gas are subject to commission regulation as sales "in interstate commerce for resale." The proceeding was initiated by Deep South when it asked the commission to declare that its sales to Texas Gas Corporation were not subject to regulation under the act.

Sales in Interstate Commerce

Deep South sold gas at the wellhead to Texas Gas, which in turn, after gathering and processing, sold the gas to a pipeline company for transmission and sale both intrastate and interstate. The producer contended that the sales did not fall within the grant of jurisdiction over sales in

interstate commerce because they were local sales only. The court disagreed. It noted that the act was primarily designed to protect consumer interests against exploitation at the hands of private natural gas companies. In Phillips Petroleum Co. *v.* Wisconsin, 347 US 672, 3 PUR3d 129, the Supreme Court recognized a congressional intent to give the commission jurisdiction over the rates of all wholesale sales of natural gas in interstate commerce whether by a pipeline company or not and whether occurring before, during, or after interstate transmission.

The court of appeals declared that to allow Deep South to establish its own interests in complete freedom from regulation of its wholesale price for interstate sales would be to permit it, if it were so inclined, to engage in the very exploitation which the Natural Gas Act was designed to prevent.

The fact that the sales are made at the wellhead is immaterial since the particular point at which the title and custody of the gas pass to the purchaser, without arresting its movement to the ultimate interstate destination, does not affect the essential interstate nature of the business. The movement here was concededly continuous from the wells through the processing plants and on to the consumers.

Processing Not Manufacture

It is not significant, said the court, that the gas passed through Texas Gas' processing plants. The processing does not interrupt the interstate journey and is not a manufacturing operation. It is merely a part of the business of transporting and marketing gas. Although the pipeline company sold some of its commingled gas to intrastate customers, at least a portion of the gas sold by Deep South would find its way into other states. Consequently, it was said, there could be no question that Deep South was making sales for resale within the meaning of the act.

The producer insisted that the casinghead gas which it sells is not natural gas under the act, pointing out that such gas contains other constituents than methane and ethane, the principal components of natural gas used for domestic and industrial fuel. The court ruled, however, that casinghead gas is not any the less natural gas because it contains variable amounts of other constituents.

Producer Sales Not Exempted

Deep South contended that in any event its sales fell within the exemption of § 1(b) relating to "the production and gathering of natural gas." The court noted that under familiar rules of construction an exception to a statute will be construed so as to avoid nullifying or restricting its apparent principal purpose and the positive provisions made to carry them out. The statute expressly places under commission jurisdiction sales in interstate commerce.

The exemption of production and gathering, said the court, means merely that the physical activities, facilities, and properties used in production and gathering are not subject to commission regulation. The act does not intend that wholesale sales in interstate commerce which are consummated before the gas has been gathered or processed should not be regarded as sales in interstate commerce within the commission's jurisdiction.

Finally, the court held that the commission's jurisdiction could not properly be attacked on the ground that a decision on such jurisdiction would give rise to hypothetical issues relating to the granting of certificates and permission to discontinue sales.

No such issues were actually presented, the court observed.

Dissenting Views

Judge Brown, dissenting, indicated that the case was a new one never before decided. Previous decisions were noted where commission jurisdiction over post-production and gathering sales was upheld. The sales here under consideration, however, were at the wellhead before gathering was completed. The majority's decision extended jurisdiction to such sales. Said the judge: "Where can the states go? To the well side of the Christmas tree? To the bottom of the well?" Wherever it is fixed is not far enough, nor may it ever be, he remarked.

The thesis of the majority's opinion, the judge said, asserts that because gas once released is in a constant state of movement, that movement from the moment it commences is characterized, intrastate or interstate, by its final destination. This means that if a state prescribes the price as a condition precedent to the right of withdrawing this natural resource, the sale out of the well is of necessity in interstate commerce. Although Judge Brown did not claim that this consequence would make the act invalid or unwise, he pointed out that the jurisdiction of the federal commission was to complement that of the state regulatory bodies.

Accordingly, § 1(b) of the Natural Gas Act, besides indicating the reach of Federal Power Commission authority, was made to specify the areas into which jurisdiction was not to extend. The judge stated: "The holding of a jurisdictional sale at the wellhead does more than prohibit, and thus invade, state regulation. It affirmatively imposed substantial obligations of the most awesome kind which, although appropriate to utility regulation and within the conceded constitutional power of Congress, could hardly have been anticipated by Congress for application to a person engaged in the local activity of drilling and bringing in an oil or gas well."

Touching the question of processing, the judge observed that casinghead gas is bought and sold for its multiple use, of which the sale of the residue to a pipeline company for resale is only one. The sales here under consideration therefore had a substantial purpose other than ultimately making fuel gas available for transmission. It was suggested that sales "in interstate commerce for resale" were meant by Congress to be those effected after processing was completed. *Deep South Oil Co. of Texas v. Federal Power Commission, No. 15849, June 29, 1957.*

Proof of Necessity and Inadequacy of Competitor Must Be Shown for Authority

A MOTOR carrier's application for authority to extend operations was denied by the Colorado commission because he failed to produce evidence showing the existing service of competitors to be inadequate and that a grant of such authority would improve service to the public. The commission said that the carrier, being aware of the rules of procedure, should have produced public witnesses and offered testimony to establish the need and desire for its service. Failure to produce such evidence, upon which the commission must base its decision, results in failure to prove the case. The commission further pointed out that although an increase in population may require a carrier to provide more facilities, such as trucks and personnel, it does not necessarily require additional motor carriers. *Re G. I. Express Co. Application No. 15538, Decision No. 48389, July 22, 1957.*

Temporary Injunction against Competitive Operation

THE United States court of appeals affirmed the issuance of a temporary restraining order pending a hearing on a temporary injunction, and of the temporary injunction, in an action by one bus company against another to enjoin the second from operating in competition with the first. The lower court had been presented with questions of whether the certificate of convenience and necessity authorizing the bus company's operations was an exclusive one, whether the bus company was entitled to an injunction even if its certificate was not an exclusive one, and whether the temporary certificate granted the other bus company was valid.

The fact that the court may finally find the facts against plantiff who procured the temporary injunction, said the court, does not compel denial. If it is ultimately decided that the party who obtained the temporary injunction cannot win, such finding does not demonstrate that it was wrong to issue the injunction.

The trial court has considerable latitude of judicial discretion in determining whether the situation requires the preservation of existing conditions through an injunction *pendente lite*. The more deliberate conclusion of the court of appeals that the ultimate decision must be against a permanent injunction does not warrant reversal of the interlocutory order.

The court took judicial notice that final determination of the issues presented in the federal district court for the territory of Alaska would come only after long delay because of the condition of the Alaskan court calendars. The Alaska commission, which had issued the temporary certificate to the bus company, was held to have the power to suspend the certificate until a hearing could be held upon the competing bus company's protest that the certificate had been issued without notice and that the competing company would be put out of business. *Burton et al. v. Matanuska Valley Lines, Inc. 244 F2d 647.*

Public Need Must Be Shown for New Service Provided under Transferred Certificate

THE Pennsylvania court of appeals vacated an order of the commission which revoked a certificate previously granted to a motor carrier to continue the service of its transferor. The commission's action was taken at the instance of carriers protesting the transfer of authority.

The transfer to one carrier of another's existing rights does not require proof of necessity, but where the transferee performs services different from those provided by the original certificate holder, an opportunity to present evidence on the question of public necessity must be afforded.

In the instant case the commission reopened a belated application by the protestants for rehearing under a statute which allows recission or amendment of orders after notice and opportunity to be heard.

The court indicated that although the commission could not breathe life into the belated application, it could take action under the above statute and conduct an independent inquiry.

The transferee had apparently undertaken an entirely new service, although the question of whether the new service was required by public convenience had never been presented to the commission for determination. The court felt that justice would best be served by remanding

the case for the purpose of affording the carrier an opportunity to present testimony on the question of public necessity for his service as presently operated. *Paradise v. Pennsylvania Pub. Utility Commission, 132 A2d 754.*

Passenger Trains Ordered Continued Despite Heavy Loss

THE Wisconsin commission refused to permit the discontinuance of rail passenger service on a 97-mile line between Milwaukee and Berlin. The railroad company complained of an out-of-pocket loss of 70 cents a train-mile for the two passenger trains it operates over the line. The application to discontinue service was precipitated by the cancellation of a mail contract. The system as a whole is profitable.

The trains serve various types of passengers, including commuters, shoppers, businessmen, locals, and recreationals. Nearly every station on the line contributes a share of the traffic. The commission indicated that considerable inconvenience would be suffered by patrons if discontinuance were permitted. While bus service would be available to some communities on the line, others would lose public transportation entirely.

The commission ruled that the public convenience required the service to be continued.

It was not convinced that all possible economies had been achieved. The possible use of self-propelled passenger units was suggested. Pointing to the substantial portion of operating costs represented by crew wages, the commission indicated that the time is appropriate for railroads and the brotherhoods to co-operate in a re-evaluation of their mutual practices and policies relative to the passenger train problem, giving primary consideration to the public interest. *Re Chicago, M. St. P. & P. R. Co. 2-R-3132, July 19, 1957.*

Other Recent Rulings

Limited Service Restriction. The New Jersey commission held that a legislative resolution restricting the discontinuance of passenger rail service for a limited time only does not violate due process. *Re Pennsylvania R. Co. Docket No. 10167, July 23, 1957.*

Discharge from Service Area. A petition requesting that a telephone company be directed to release petitioner from its service area was denied by the Illinois commission where the company had not consented to the petitioner being served from the exchange of another company serving an adjacent area and had offered to restore former service upon proper application therefor. *Waldbeeser v. General Teleph. Co. of Illinois, 44252, August 14, 1957.*

Water Company Return. The Connecticut commission considered a return of 5.47 per cent reasonable for a water company. *Re New Haven Water Co. Docket No. 9498, August 2, 1957.*

Appendix

Important addresses on legal, economic, financial, and other problems, delivered before the Public Utility Law Section of the American Bar Association at New York, New York, July 11-13, 1957, and London, England, July 24-30, 1957.

Current Problems in Natural Gas Regulation—A Consumer Viewpoint

By WILLIAM E. TORKELSON*

THERE are today an estimated 22 million natural gas consumers in the United States. Each sits at the end of an integrated operation which starts with the producer or gas supplier, followed by the pipeline transportation company, and then the local distribution company.

Individually and in the aggregate, the consumer is a most important person. His acceptance or rejection of natural gas service can mean the economic success or failure of the natural gas business. Many local distribution companies have been and are seriously concerned about the problem of selling natural gas to the consumer in competition with other fuels. Some pipeline transportation companies share that view. The producers, on the other hand, seem principally interested in getting as high a price as possible for their gas. Such a course of conduct, if unrestrained, can injure the entire industry. There are competing fuels and sources of energy. The electric industry has for years been improving the efficiency of generation and distribution of electric energy which results in decreasing the cost to the ultimate consumer. It is now engaged in the development of devices seeking to harness the power of the atom to the generation of electric energy. Improvements are being made in the heat pump. The natural gas industry cannot afford to ignore these developments. It cannot afford to price itself out of the market, for it, no more than any other business enterprise, cannot continue in business without customers.

THE natural gas consumer, except for direct industrial sales or other special circumstances, receives service from and is billed by his local distribution company. When the consumer looks at the bill for service, he is interested in the dollar amount, and, from his viewpoint, the lower the better. He should also be interested in quality and continuity of service, but he probably takes that for granted.

The consumer is aware that his bill is based on rates fixed by governmental action. There can be no guaranty that a rate so fixed will be in such dollar amount as will result in a bill that will please the customer. In order to produce the revenues needed to maintain the service, the rates must be sufficient to include all costs of producing, transporting, and distributing the gas, including a fair return or profit. This is an economic necessity and will prevail irrespective of any statutory direction that costs cannot be considered in carrying out the regulatory scheme, or any part thereof.

What the customer is entitled to expect and receive is sound and efficient regulation which produces rates that are just and reasonable for the consumer and the regulated company. The consumer is entitled to this because he cannot alone effectively protect himself against the charges imposed. After the consumer has installed gas-burning appliances at a cost of several hundred dollars, he cannot, as a practical matter, turn to an alternative fuel when faced with a price increase, since to do so would require him to junk his investment.

INCREASES in the rate he pays for service, especially if they are frequent, can cause consumer resentment against the industry and also against the regulatory agencies involved. If there is poor, ineffective regulation the consumer will sooner or later become aware of the fact, and do as he always

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has done, turn to his government for action. There are three possible alternatives: (1) stricter regulation; (2) antitrust laws; and (3) public ownership.

In case of natural gas service, the local distribution rate has been, for many years, and now is fixed through action of state or municipal regulatory agencies. The rate at which the pipeline transportation company sells to the local distribution company has, since the enactment of the Natural Gas Act in 1938, been fixed by the Federal Power Commission. In both cases, rates for such sales, generally speaking, have been and now are fixed on a cost-of-service basis by use of the conventional utility rate base method, although there may be differences in various jurisdictions in matters such as the method of determining the rate base and possibly other respects. Since the Hope case,[1] we are not aware of any substantial complaint concerning such regulation, by either consumers or regulated companies.

In the years following World War II, there has been a tremendous demand for natural gas service, indicating consumer acceptance of the service at rates established. This customer acceptance has caused both pipeline transportation companies and local distribution companies to prosper under state and federal regulation.

THE question which today is arousing the greatest interest in the field of natural gas regulation is with respect to the type of regulation that the FPC should exercise over the producer or gas supplier selling gas to pipelines transporting natural gas to market areas for resale for ultimate public consumption and the rate at which the producer or gas supplier sells that gas. The jurisdiction of the FPC over such producers or gas suppliers at this time (June, 1957) is that given by the Natural Gas Act of 1938 as it existed at the time of the commencement of the present session of Congress early in 1957, which prescribes a standard of "just and reasonable rates." All consumers and their representatives, of which we have heard, are willing to let the FPC continue to operate under such act without change. The pressure for change comes principally from producers and others who sell gas to pipeline companies, and others acting in their behalf.

The principal legislation to amend the Natural Gas Act of 1938 now pending before Congress is HR 6790, introduced by Representative Harris of Arkansas.

Representatives of consumer groups believe that while HR 6790 recognizes that the public interest requires regulation of producer prices, the legislation fails to adequately protect consumers. We share that view. The reasons for such view have been presented in considerable detail by those appearing in behalf of consumers to the House Committee on Interstate and Foreign Commerce during the course of hearings on the bill, which concluded on June 3, 1957.

BECAUSE of the limitation on the time for this presentation, we cannot here discuss all provisions of HR 6790 about which the consumer should be concerned. Hence we shall confine our presentation to that portion of the bill which would limit, through procedures specified therein, price increases called for by definite and indefinite pricing clauses in producer contracts to the "reasonable market price" of the gas.

The course which the FPC is directed to follow in determining "reasonable market price" is stated in § 13C of HR 6790 as follows:

> Section 13C. Subject to the provisions of § 13F, in the determination of the reasonable market price of natural gas under any provision of this act, the following principles shall control:
>
> (1) The commission shall recognize the fact that natural gas is a commodity, and shall not consider costs or use the public utility rate base cost-of-service concept or formula.
>
> (2) The commission shall consider—
>
> (a) whether the price as determined by it will assure to consumers of natural gas a continuing adequate supply thereof;
>
> (b) whether the contract price was arrived at competitively and in arm's-length bargaining;
>
> (c) the reasonableness of all the provisions of the contract as they relate to prices under a definite pricing clause;
>
> (d) the quality of the natural gas being purchased;
>
> (e) conditions of delivery.

(3) The commission shall consider the current level of field prices under other contracts in the same field and under contracts in other fields and areas which contain terms and provisions generally comparable to those in the contract under review, giving appropriate weight to the circumstances affecting price under which such other contracts were negotiated and the factors set forth above.

(4) The reasonable market price is not necessarily the price of the last sale, the highest price, the lowest price, the weighted highest price, the average field price, or other price arrived at by the mechanical application of a single criterion. Instead, it is a price which the commission, exercising its judgment and discretion in weighing, among other things directly relevant to the issue, all factors enumerated above, determines is the reasonable market price.

THE value concept can properly be applied only where there is a free market with a full interplay of the forces of supply and demand, such as in the case of cigarettes or automobiles.

Natural gas is not bought or sold in the field under the circumstances of a free competitive market, which are necessary to give a value concept economic validity. The nature of the industry is such that as a practical matter the buyer and seller never can bargain on an equal basis. Each case must, of course, depend upon its own facts, and there are literally thousands of cases, but for purposes of illustration we point out the situation that exists where it is proposed to construct a new pipeline which needs a gas supply amounting to at least 300,000 Mcf per day for twenty years. Gas reserves producing such amounts are not easy to find and we believe no one would deny that the promoter of such a project would be at a disadvantage in bargaining with the holder of such reserves. Those seeking reserves in sizable amounts for a pipeline already in place are also in an unfavorable bargaining position, for the obvious reason that the pipeline cannot easily be relocated. On the other hand, the owner of reserves producing a relatively small amount of gas near a pipeline is in a weak position when attempting to sell his gas.

ACTUALLY natural gas has value in the field only to the extent it can be utilized for some useful purpose in the field or other points or be transported to markets where it can be sold as a fuel or for some other useful purpose. Everyone familiar with the industry is well aware of the fact that natural gas in an isolated area and in quantities too small to justify a gathering system has little or no value and may be flared, even though it has the same Btu content and is otherwise of the same characteristics as gas being sold to an interstate pipeline, say for 10 cents or 20 cents Mcf. What makes the difference? Simply that in the case of the 10-cent or 20-cent gas it can be transported to market and sold, while in the other case it cannot. Thus, it is not the "value" of the gas as a commodity that fixes the price, but rather the ability to transport it to market and sell it or otherwise make an economic use of it, that gives it "value." It is, therefore, economic nonsense to attempt to fix a value for the gas which in turn forms part of its ultimate selling price, when the ultimate selling price directly affects its value in the field.

From the viewpoint of the economist, the value obtained upon a competitive market is the best evidence of the value of a commodity. But where, as here, the question is for the FPC to determine the sale price for the commodity, obviously one cannot apply its sale or market price as the standard. Federal Power Commission *v.* Hope Nat. Gas Co. (1944) 320 US 591, at 601, 51 PUR NS 193:

> . . . The heart of the matter is that rates cannot be made to depend upon "fair value" when the value of the going enterprise depends on earnings under whatever rates may be anticipated.

SINCE "value" depends upon the price allowed by the regulatory agency, it is reasoning in a circle to direct, as § 13C does, that the FPC find value in order to determine "price."[2]

The language contained in § 13C (4) in effect constitutes a definition of "reasonable market price." For convenience we again set forth its provisions:

> (4) The reasonable market price is not necessarily the price of the last sale, the highest price, the lowest price, the weighted highest price, the average field price, or

> other price arrived at by the mechanical application of a single criterion. Instead, *it* [reasonable market price] is a price which the commission, exercising its judgment and discretion in weighing, *among other things* directly relevant to the issue, all factors enumerated above, determines is the reasonable market price. (Emphasis ours.)

The word "it" in the last sentence refers to "reasonable market price" and when we substitute those words for "it" as indicated above, we submit what results when reduced to its bare essentials is a definition which says that "reasonable market price" is "reasonable market price." We submit this clearly is reasoning in a circle. Further, the words "among other things," in effect, give the FPC a blank check. The net result of all of the foregoing is, we submit, to effectively eliminate any possibility of a legally sufficient standard under which the FPC would determine "reasonable market price."

THE language of § 13C (4) is subject to the same criticism as was made against the "present fair value" rule[3] of Smyth *v.* Ames, 169 US 466, by Mr. Justice Brandeis in his concurring opinion in Missouri ex rel. Southwestern Bell Teleph. Co. *v.* Public Service Commission, 262 US 276, at 297-8, PUR1923C 193:

> . . . The result, inherent in the rule itself, is arbitrary action, on the part of the rate regulating body. For the rule not only fails to furnish any applicable standard of judgment, but directs consideration of so many elements, that almost any result may be justified.

The mandate of § 13C that the FPC *shall not* consider cost is especially startling in light of the foregoing. It eliminates the use of the only objective standard that can be used. In 1915 the supreme court of Wisconsin said in Duluth Street R. Co. *v.* Railroad Commission, 161 Wis 245, 261, PUR1915D 192:

> . . . The cost of the service is the most definite and tangible guide there is to tie to in making rates, if, indeed, it is not the only one. . . .

The instant proposal whereby the FPC is affirmatively directed to disregard cost in determining reasonable market price is without precedent. Its effect can only be to throw the entire subject into the field of speculation and conjecture.

THE provisions of § 13C (4) above mentioned, when coupled with the command in subsection (1) to disregard cost and not use the conventional public utility rate base cost-of-service concept or formula, are an obvious attempt to reverse Detroit *v.* Federal Power Commission.[4] It is an open invitation to the FPC to pick a figure out of the air and place its selection beyond judicial review on ground it involves a question of fact.

We first suggest that the industry, as well as consumers, should think a long time about even attempting to give any regulatory agency such unbridled power. The regulatory atmosphere changes from time to time, as all who work in that field are well aware.

Past decisions such as the Panhandle "fair field price" decision[5] may lead the producing portion of the industry to believe that a "reasonable market price" determination made today would provide what it considers an adequate price. A future regulatory agency might not be so generous. It might feel that the price is too high, and in exercise of its informed judgment and discretion determine that a lower price is justified. This could have unpleasant consequences for the producing segment of the industry, especially when it is remembered that if, as provided in HR 6790, costs cannot be considered.

IF what is last suggested above should come to pass, we think there would then be those who would share our belief that it is doubtful if it will in any event be possible to give such broad power as attempted above by subsection (4) to any regulatory agency, which would purport to permit it simply to make a finding that the amount of x cents Mfc is the "reasonable market price" of the gas and make such a figure stand up against attack. It is our conviction that the courts will demand that the commission also make such further evidentiary findings showing the grounds on which its conclusion is reached, to insure that there be a proper factual basis for its conclusion.[6]

In Commonwealth Teleph. Co. *v.* Pub-

lic Service Commission,[7] the Wisconsin commission, in effect, found that a rate which would produce an annual net income of $12,500 was "just and reasonable." The supreme court of Wisconsin held that an order based on such finding could not stand because it, in effect, required the court to accept the commission's *ipse dixit* without having a chance to look behind it. The court further stated, in effect, that unless the commission made specific findings of relevant facts, the court would have no rule to apply on review; that if the commission is to be permitted to proceed solely upon a finding that net income of $12,500 was "just and reasonable," then the commission could a year later find that $25,000 was proper and "consumers would then be bound by the commission's abstract conclusion of 'reasonableness.' " The court also said, ". . . It was not the intention of the legislature to bestow such arbitrary powers upon the commission, and nothing in the statutes can be so construed."

Likewise, a finding that proposed rates would be "unreasonable" is insufficient unless supported by facts more particularly stated. United States *v.* Chicago, M. St. P. & P. R. Co. 294 US 499, 506. Many more cases could be cited. See, Annotation 146 ALR 209.

As above indicated, the rule rests upon the proposition that a reviewing court cannot properly exercise its function upon findings of ultimate fact alone. There must be findings sufficiently specific to enable a court to intelligently review an administrative decision and ascertain if the facts upon which the order is based afford a sufficient basis for it.

In Mississippi River Fuel Corp. *v.* Federal Power Commission (US Ct App [DC] 1947) 69 PUR NS 129, 163 F2d 433, it was recognized that the FPC had a wide power and discretion in the selection of a formula for the apportionment of costs. But this, as pointed out by the court at pages 439 and 441 of the opinion, is subject to definite requirements: (a) Congress has forbidden arbitrary action and given the courts a duty of review in that respect; (b) arbitrary action includes action not based on facts or reason; (c) the discretion of the FPC must be exercised on facts and reason and the court's duty to review "requires that the facts be found and the reasons stated," otherwise "the courts cannot determine whether a given action is or is not arbitrary"; (d) while the commission may adopt its own formula, the factors which comprise the formula adopted must be defined and the FPC must "make clear and complete the findings and reasons which lead to its conclusion," sufficient to be judged. The court stated, page 439:

> . . . And neither can they [courts] be required to probe the minds of the agency for unfound facts or unexpressed reasons. The co-ordination of the two functions of administrative discretion and judicial review requires that the facts upon which the discretion is exercised, and the reasons, be clearly and completely stated. When the matter is complicated, the necessity is greater.

Any finding by the FPC in a particular case of the "reasonable market price" of the gas must, therefore, be supported by such findings as will show the basic evidence on which it is made. This will make it imperative that the record contain sufficient evidence to enable that agency to properly arrive at its conclusions.

THERE are a number of cases in which the sufficiency of evidence to establish "value" of natural gas reserves is discussed.[8] While it is difficult to generalize, one thing is certain. The courts do not accept the proposition that anything goes. Instead, the need for tangible and trustworthy evidence is clearly indicated. The weight to be given evidence on value must depend upon whether it is consistent with sound economic principles.

Thus, it has been held in at least one case that a mere statement that reserves have a certain value in the open market is insufficient without an explicit statement showing the extent and nature of such market, and unless it appears that such open market is completely divorced from the effect of regulated prices upon it.[9]

The situation most desired by the producing end of the natural gas industry is to be entirely free from federal regulation. If there is to be regulation, the basic interest of such segment of the industry is in the number of dollars it will be permitted to earn under such

regulation. Because the price trend has been upwards since 1940, means are being sought to enable the producer to cash in on the higher prices generated by such trend, and HR 6790 is the current method being employed for that purpose. History is repeating itself. Essentially what is happening now is the same as what happened in the years starting about with the World War I, when there was also an upward price trend. Business subject to regulation at that time took advantage of rising prices by advocating and gaining judicial, and in many cases, legislative acceptance of the "present fair value" doctrine with its satellite "reproduction cost new."

ACTUAL experience under "present fair value" soon established that this doctrine was unworkable in practice, as is evidenced by many critical comments in law review articles and judicial opinions,[10] particularly that of Mr. Justice Brandeis in Missouri ex rel. Southwestern Bell Teleph. Co. *v.* Public Service Commission, 262 US 276, PUR1923C 193. In that opinion[11] Mr. Justice Brandeis referred to the problem of establishing reproduction cost and in so doing pointed out that while the engineering witness who testified as to value "spoke in figures—a language implying certitude," it soon came to be realized that the definiteness of the calculations "was delusive" and estimates varied so greatly as "to intensify, rather than to allay doubts."

After some forty years of attempting to apply "present fair value" the Supreme Court, as we all know, discarded the doctrine.[12] Significantly, the Supreme Court based its rejection of "present fair value" on its conflict with economic principles.

The sponsors of HR 6790 are now seeking to put in effect a philosophy identical in principle to and with all of the infirmities of "present fair value" and "reproduction cost new." If HR 6790 is enacted into law, it is our belief that history will further repeat itself and, as in the case of "present fair value," the principles of HR 6790 will eventually be discarded.

Footnotes

[1] Federal Power Commission *v.* Hope Nat. Gas Co. (1944) 320 US 591, 51 PUR NS 193.

[2] Federal Power Commission *v.* Hope Nat. Gas Co. (1944) 320 US 591, 601, 51 PUR NS 193; Colorado Interstate Gas Co. *v.* Federal Power Commission (1945) 324 US 581, 603, 58 PUR NS 65; Dayton Power & Light Co. *v.* Ohio Pub. Utilities Commission (1934) 292 US 290, 299, 3 PUR NS 279.

[3] The portion of the opinion in Smyth *v.* Ames (1898) 169 US 466, which describes how the fair value of the property used in public service is to be determined, reads as follows: "And, in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property. . . ."

[4] (CA DC 1955) 97 US APP DC 260, 11 PUR 3d 113, 230 F2d 810.

[5] Re Panhandle Eastern Pipe Line Co. Opinion No. 269, Docket Nos. G-1116 et al. 3 PUR3d 396.

[6] Kansas State Corp. Commission *v.* Federal Power Commission (CA 8th 1953) 1 PUR3d 310, 206 F2d 690, 723.

[7] (Wis Sup Ct 1948) 73 PUR NS 97, 252 Wis 481.

[8] See, for example, Dayton Power & Light Co. *v.* Ohio Pub. Utilities Commission (1934) 292 US 290, 3 PUR NS 279; United Fuel Gas Co. *v.* Railroad Commission, 278 US 300, PUR1929A 433.

[9] Natural Gas Co. *v.* Public Service Commission (W Va Sup Ct App) PUR1924D 346, 95 W Va 577, 121 SE 716; *cf.* Dayton Power & Light Co. *v.* Ohio Pub. Utilities Commission (1934) 292 US 290, 3 PUR NS 279.

[10] See, for example, 37 *Michigan Law Review* 1209 (1939); 33 *Illinois Law Review* 517 (1939); 73 *U. S. Law Review* 315 (1939); Utah Power & Light Co. *v.* Public Service Commission (Utah Sup Ct 1944) 56 PUR NS 136, 107 Utah 155, 152 P2d 542.

[11] According to Bauer and Gold, *Public Utility Valuation*, p. 88, "the minority [concurring] opinion of Judge Brandeis, whatever one may think of its conclusions in support of 'prudent investment,' is generally recognized as the ablest presentation of the basic economic issues involved in valuation for rate making that has ever been delivered from the bench."

[12] Federal Power Commission *v.* Natural Gas Pipeline Co. of America (1942) 315 US 575, 42 PUR NS 129; Federal Power Commission *v.* Hope Nat. Gas Co. (1944) 320 US 591, 51 PUR NS 193.

Natural Gas Legislation as Viewed by a Distributing System

By WILLIAM A. DOUGHERTY*

ALTHOUGH the title of this discussion is not limited to federal legislation, the impact of natural gas legislation enacted by the states has lesser importance today than have the federal Natural Gas Act and the amendments proposed by HR 6790, the Harris-O'Hara Bill now pending in Congress. The effects of minimum price legislation and orders and the fixing of production allowables all have their effect upon the distributing company. A review of all such matters would require more time than allotted to us, and today the interest primarily is in the regulation of producer prices by the Federal Power Commission. This paper will be limited to that subject.

At the outset, I wish to make clear that my views on natural gas legislation do not coincide with the opinions held by some executives and lawyers in the distribution segment of the natural gas industry. The objectives of all distribution companies are alike; namely, to obtain an adequate continuing supply of natural gas at a price level that will encourage an increasing use of natural gas by consumers of all classes. There is no reason to believe that the price of natural gas will remain at the present level. Increased costs, starting with the constant upward trend of wages, find their way into steel and all the tools used in the complete cycle of exploration, production, transmission, and distribution. The necessity of constantly drilling deeper wells in the Gulf coast can result only in greater costs, even with larger recovery of reserves.

AGREEING then on the objectives of legislation, what are the differences of opinion among various distribution companies as to the methods best adapted to accomplish the common objective? We in the Consolidated Natural Gas system believe that proper incentives to encourage the development of gas reserves will bring on to the market an adequate continuing supply. With greater quantities of gas available, the tendency to reasonable and orderly price increases will result.

A brief review of past events may be helpful in placing the proposals of HR 6790 in proper perspective:

In 1938, when the Natural Gas Act was enacted, there were only a few long-distance pipelines bringing gas hundreds of miles to the consuming markets. There were, of course, the integrated natural gas systems in the Appalachian area, Kansas, Oklahoma, Texas, and Louisiana. These systems developed their gas supplies in the general area of distribution. With the realization of the large gas reserves in the Monroe, Louisiana, field and the Amarillo or Panhandle field in Texas, came the development of pipelines to transport the gas to markets. The first of these was built in 1926 when Interstate Natural Gas Company (now Olin Gas Transmission Corporation) constructed its pipeline from the Monroe field to Baton Rouge, there connecting with another pipeline to New Orleans. Then followed El Paso Natural Gas Company in the Permian basin; Colorado Interstate Gas Company, Cities Service Gas Company, Panhandle Eastern Pipe Line Company, Northern Natural Gas Company, and Natural Gas Pipeline Company of America, all from the Panhandle and Hugoton fields. All of these pipelines, except Cities Service, were built to communities then served with manufactured gas. Volumes were relatively small and all of these companies owned gas reserves sufficient to supply the markets. When gas was purchased, the usual price was from 3 to 4 cents. It was a buyer's market and continued so until the end of World War II.

THE first cases before the Federal Power Commission resulted in reductions in city gate rates, and not until the vast expansion, starting in 1947, did the demand for gas swing the pendulum of gas supply to a seller's market. This came about largely because of the desire to finance new pipelines and extensions of old lines by debt securities.

The earlier pipelines had been financed primarily upon the credit of the groups constructing the pipelines or by issues of common stock. Since the early pipelines owned

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adequate gas reserves on the basis of the then existing markets, the gas contract problem did not arise until the pipelines not owning gas reserves were constructed. Twenty-year debt securities required equivalent gas purchase and sales contracts. This requirement in turn led to the escalation clauses other than the fixed time and price increases. So it was that by the time the question of rate regulation of producer sales got into the courts the increases in producer prices resulting from favored-nation clauses and other types of escalation methods began to pinch at the distributing company level.

FORESEEING the trend of court decisions commencing with Federal Power Commission et al. *v.* Interstate Nat. Gas Co. (1949) 336 US 577, 79 PUR NS 45, the producers sought to completely free producer contracts from price regulation. The Moore-Rizley Bill passed the House, but made no more progress. Then the Kerr Bill was passed, but was vetoed by President Truman on April 15, 1950. During these years the price of gas to the pipelines continued to rise. Frequently an expansion of only 10 per cent resulted in a price increase for the other 90 per cent of gas supply. Following the decision of the Supreme Court in Phillips Petroleum Co. *v.* Wisconsin (1954) 347 US 672, 3 PUR3d 129, the Harris-Fulbright Bill was introduced and passed over the strenuous opposition of a large group of distributing companies organized into the Council of Local Gas Companies.

Following the veto of that bill by President Eisenhower, a series of conferences ensued between committees representing the producers, pipelines, and distributing companies. As a result of those endeavors a statement of principles was developed which formed the basis of HR 6790 and HR 6791, identical bills. Some of the distributing companies most strongly opposing Harris-Fulbright joined in this co-operative effort to arrive at a solution of what the Federal Power Commission, the pipelines, and most distributing companies consider to be a regulatory slough of despond.

ALONG with HR 6790 and HR 6791 other bills relating to natural gas regulation were considered at the hearings before the Committee on Interstate and Foreign Commerce—House of Representatives, which commenced May 7 and ended June 4, 1957. All of them had as their object the exemption of all producer sales, or producers whose sales did not exceed two billion cubic feet per year.[1] HR 7105 purposed to extend Federal Power Commission jurisdiction to all sales in interstate commerce, both for consumption as well as for resale.

The statements and oral testimony given before the committee have been printed. An examination of the 1,742 pages of that record delineates quite clearly what is the main point of difference in the distributing companies for and those against the bill. It is not whether producer sales prices shall be subject to Federal Power Commission regulation; for the proponents of the bill, including the producers, accept the principle that there must be federal supervision to prevent producer prices becoming unreasonably high. It is the type of regulation that is in dispute. The distributing companies opposing HR 6790 want public utility rate methods, using the cost-of-service formula, to prevail. Those of us supporting the bill firmly believe that the exploration and production of natural gas over wide areas and at varying costs and results cannot survive under public utility rate methods. We are convinced that some other system of control must be employed if the flow of gas is to continue in sufficient quantities to supply our growing markets. That provided by HR 6790, we believe, will accomplish that objective without unreasonable price increases.

THERE are two basic principles stated in HR 6790 which we believe will afford protection to the consumer in his right to a continuing adequate supply of gas at reasonable prices. The first is that complete exemption from regulation is not provided. Sales of natural gas by producers are to be regulated by the Federal Power Commission to the extent set forth in §§ 2, 3, and 4 of the bill, which is to be cited as the "Natural Gas Act Amendments of 1957." The second is that the escalation clauses to which such strong objections have been made are prohibited from being included in any new contract or added to any existing contract.

In carrying out these principles additional sections are added to the Natural Gas Act

[1] HR 237, HR 1007, HR 3363, HR 6478, HR 6813, HR 7105, and HR 7232.

which provide for regulation of the sale of natural gas under producer contracts, these being designated as §§ 13A, 13B, 13C, 13D, and 13E. Producer sales are to be subject only to federal regulation, and the bill expressly excludes regulation by any state or local authority over the sale price of natural gas either at or before the commencement of the transportation of such natural gas in interstate commerce. Section 13F deals with pipeline-produced gas, and § 13G provides a limited exemption to producer contracts which do not contain an indefinite pricing clause.

Sections 3 and 4 of the bill set up a new and special procedure under which the producer sales will be regulated.

IN order to exclude the producer sales from the provisions of the Natural Gas Act as now constituted, certain definitions not now included in that act are added to § 2 of the act, these being the definitions of "transportation of natural gas in interstate commerce" and "sale in interstate commerce of natural gas for resale."

By the use of these definitions a sale of gas in the field no longer causes a producer to fall within the category of a "natural gas company" as defined in Paragraph (6), § 2 of the Natural Gas Act. Producers' sales are thus relieved from the utility type of regulation applicable to the interstate pipelines.

Having eliminated producer sales from the present provisions of the Natural Gas Act, the bill classifies these sales for the purposes of the continued jurisdiction by the Federal Power Commission under the special regulatory procedures contained in § 4 of the bill. Paragraphs (12), (13), and (14) are added to § 2 of the act to accomplish this.

A producer contract is defined as a contract for the sale of natural gas to a natural gas company where the sale occurs in or within the vicinity of the producing fields at or prior to the commencement of the transportation of such gas in interstate commerce.

There are two classes of producer contracts: "new producer contracts" and "existing producer contracts." A "new producer contract" includes a producer contract executed after the date the bill takes effect as a law, and any renegotiation or other amendment made or entered into after February 1, 1957, of any producer contract which changes the pricing provisions or the duration of such producer contract. An "existing producer contract" is any producer contract, or renegotiation or amendment thereof not changing its pricing provision or its duration, executed on or before the date the bill takes effect as a law, whether or not deliveries had been commenced at such effective date.

The regulatory treatment accorded new producer contracts is more inclusive than that provided for existing producer contracts.

IN dealing with the so-called favored-nation, price redetermination, and similar escalation clauses to which serious objection had been made during the hearings on the Harris-Fulbright Bill, the bill makes a classification between definite and indefinite pricing clauses in paragraphs (15) and (16). A "definite pricing clause" is any provision which sets forth in terms of a specific price per unit the prices to be paid for natural gas sold under the contract, and includes the initial price, any increase in the initial price by specific amounts at definite future dates, and tax reimbursement clauses. Clauses of this type have long been in use and have not been considered objectionable if the stated increase was reasonable in amount.

Any provision for determining or changing the price in a producer contract which does not fall within the definition of a "definite pricing clause" is termed an "indefinite pricing clause." An "indefinite pricing clause" may be of the objectonable type prohibited by § 13A(a), or it may be of a character designed to give proper protection against inflation in view of the fact that pipelines and distributing companies require long-term commitments of gas, generally for twenty years.

One more definition is included which is designated as paragraph (17) and is added to § 2 of the act. It defines an affiliate of a natural gas company and is required in connection with the treatment given pipeline-produced gas in § 13F.

HAVING stated the definitions necessary in setting up the new regulatory procedure for producer contracts, § 4 of the bill adds seven new sections to the Natural Gas Act designated as §§ 13A through 13G, inclusive.

Section 13A deals only with new producer

contracts and is divided into subsections (a) to (g), inclusive. Subsection (a) prohibits the inclusion in any new producer contract, or in any amendment of a producer contract, of certain described indefinite pricing clauses designated as (1) two-party favored nation, (2) third-party favored nation, (3) better market or price redetermination, and (4) spiral escalation. These four specified types have been characterized as objectionable clauses.

Clauses of this type may continue in existing contracts if already included before February 1, 1957, but any proposed price increase based on such a clause must be subjected to the regulatory procedure set forth in § 13B.

Subsections (b) to (g), inclusive, provide the machinery by which a new producer contract must pass the specified tests if it is to continue as a valid and binding agreement. In brief, these subsections set up procedure which requires that every new producer contract must be filed with the Federal Power Commission by the pipeline company purchaser within a designated time, and notice thereof is to be given both by publication and mail.

OBJECTIONS to a new producer contract may be filed within a stated time by any interested state, state commission, municipality, producer, pipeline company, or distributing company which is or may be affected by the contract in its purchases or sales of gas. These objections may be made on one or more of three grounds, these being:

(i) that the definite pricing clause results in a price which exceeds the reasonable market price of the gas at its point of delivery;

(ii) that the contract contains an indefinite pricing clause which is prohibited by subsection (a) of § 13A, or some other indefinite pricing clause which is contrary to the public interest; or

(iii) that the duration of a producer contract is shortened.

The commission also may initiate a proceeding on any of these grounds.

A hearing is provided for, in which the burden of proving that the new producer contract meets the required tests is upon the pipeline company filing the contract.

If any one of the objections is determined by the commission to be valid, then the new producer contract becomes null and void from and after the effective date of the commission's order so finding. If the new producer contract under review is an amendment of a producer contract, then only the amendment becomes null and void, the producer contract continues in force and effect, and any sums collected by reason of the amendment must be refunded to the pipeline company.

IF no objection is filed or if the commission determines that any which have been filed are not valid and so orders, the new producer contract continues in full force and effect according to its terms. Any definite pricing provisions which have been held valid are thereafter removed from regulation, but Federal Power Commission jurisdiction continues over any indefinite pricing clause permitted to remain in the contract and over any future renegotiation or amendment of the definite pricing provisions.

The procedure set forth in this § 13A gives ample protection to the right of the consumer against excessive prices in new producer contracts. Distributing companies, by listing their names with the commission, will receive sufficient information upon which can be made a decision whether to file objections. Thus, full opportunity will be given at the outset to inquire into all pricing provisions of the contract, the initial price, future increases, and any clauses providing for future increases based upon price indices or other indefinite pricing clauses designed to protect against inflation.

Particularly important to the consumer is the requirement that the burden of proof is on the pipeline purchaser. Having made the contract the pipeline company knows why it believes the terms are reasonable, and it and the producer have all the necessary information to justify the pricing provisions. In regulatory practice the utility proposing a change in rates always has the burden of proof as against any objections or protests of interveners.

SECTION 13B deals with increases resulting from indefinite pricing clauses and is divided into subsections (a) through (g), inclusive. These set forth the procedure which

must be followed before any price increase can be put into effect as the result of an indefinite pricing clause, whether contained in an existing producer contract or a new producer contract. Generally speaking, commission jurisdiction attaches to the price being paid under a producer contract which contains an indefinite pricing clause only when such clause operates to increase the price after the date subsection (a) takes effect. By subsection (g) a producer is given the right to waive, in writing, all benefits which might arise under an indefinite pricing clause in the contract, and from and after the date when such waiver is filed with the commission no further jurisdiction over the price being paid under that contract shall exist.

The procedure for obtaining such an increase is similar to that providing for the approval of a new producer contract. A hearing is to be held promptly, after which the commission is to determine and by order fix the reasonable market price of the gas at its delivery point.

This § 13B gives the consumer adequate protection against unjustified increases resulting from an indefinite pricing clause, whether contained in an existing contract or in a new contract. A distributing company can arrange to receive a copy of an application for any such increase and can take appropriate steps to object. As in the case of a new producer contract, the burden of proving that the proposed price increase does not result in a price greater than the reasonable market price is upon either the producer or the pipeline who possesses the facts justifying any proposed increase.

UNDER the bill the commission must determine the reasonable market price of the natural gas at the point of its delivery to the pipeline, and § 13C includes a statement of principles to be followed. Stated at the outset is the basic principle that the public uility rate base cost-of-service method shall not be used in determining the price to be paid a producer for natural gas. Natural gas is to be treated as a commodity and the commission is not to consider costs or use the public utility concept in arriving at its conclusions. The commission is required to consider these things:

> (2)(a) whether the price as determined by it will assure to consumers of natural gas a continuing adequate supply thereof;
> (b) whether the contract price was arrived at competitively and in arm's-length bargaining;
> (c) the reasonableness of all the provisions of the contract as they relate to prices under a definite pricing clause;
> (d) the quality of the natural gas being purchased;
> (e) conditions of delivery.

In addition, the current level of field prices under other contracts in the same field or in other fields which contain terms and provisions generally comparable to those of the contract under review, shall be considered.

Finally, the bill states:

> (4) The reasonable market price is not necessarily the price of the last sale, the highest price, the lowest price, the weighted highest price, the average field price, or other price arrived at by the mechanical application of a single criterion. Instead, it is a price which the commission, exercising its judgment and discretion in weighing, among other things directly relevant to the issue, all factors enumerated above, determines is the reasonable market price.

THIS § 13C gives ample leeway for all interested parties to bring before the commission all matters which are directly relevant to the issue of reasonable market price, including the effect upon consumers of the proposed price. We believe that the pricing of natural gas in the field cannot be done under the public utility method of determining a rate base and allowing a return thereon. The hazards involved, the widely varied results from the expenditure of equal amounts of money, the different results which are obtained in diversified producing fields, the widely spread areas of operations, all make this method unsuitable as a pricing mechanism.

Likewise, we do not believe that costs incurred by the producer should be given consideration. This might result in varying prices for the same gas in the same field and can result in establishing a hodgepodge of prices, making regulation impracticable and unsatisfactory to producer and consumer alike. We believe that the experience of the

Federal Power Commission in recent independent producers' cases demonstrates that cost is not a reliable criterion and that the public utility rate base method leads only to confusion.

SECTION D is inserted to make invalid the so-called "escape" clauses which are found in a number of producer contracts. Those clauses purport to give the right of cancellation in the event of asserted federal governmental jurisdiction. Since federal regulation is proposed by the bill, it is necessary to prevent the use of such clauses by either party to the contract.

Section 13E makes clear that a pipeline company whose rates are under consideration is to have allowed as an operating expense any price which it is obligated to pay under the pricing provisions of a producer contract which are in effect under the act, including certain prices which are dealt with in pending proceedings in §§ 5 and 6 of the bill. Any other payment is declared to be unlawful.

It has long been recognized that a pipeline company which engages in the production of its own gas which it transports and sells for resale in interstate commerce should be entitled to the same treatment as a producer having no pipeline operation. This was emphasized in the report on Harris-Fulbright by the House Interstate Commerce Committee.[2] The Federal Power Commission has recognized the appropriateness of making an allowance to a pipeline company for its own produced gas of an amount greater than that determined under the public utility concept, and has been sustained in this view by the court of appeals of the District of Columbia. Section 13F carries out this principle and gives to the pipeline company which produces its own gas an allowance of the reasonable market price at the point where delivery of the gas is made into the transportation facilities. Similar treatment is given if the pipeline company buys gas from an affiliate, which is defined in paragraph (17) added to § 2 of the act as meaning one who controls, is controlled by, or is under control with the pipeline company.

IN accordance with the principle stated in § 2 of the bill that certain exemptions should extend to producer contracts, § 13G provides for the absence of jurisdiction over the price paid under any producer contract which does not contain an indefinite pricing clause, and except as is provided in § 13A of the act and §§ 5 and 6 of the bill.

When a change is made in regulatory procedures, pending cases always cause some difficulties. Sections 5 and 6 of the bill are directed to this problem as they affect existing contracts. There is a declaration of the validity of

(i) all prices which are paid on June 7, 1954, by reason of an order of a state regulatory agency;

(ii) all prices which are payable on the date the subsection takes effect under a definite pricing clause; and

(iii) all prices which were being paid on the date the subsection takes effect under an indefinite pricing clause except as to prices involved in certain pending proceedings, generally being those resulting from indefinite pricing clause increases under investigation in certain proceedings under §§ 4(e) and 5(a) of the Natural Gas Act.

In making its determination and orders in each of the pending proceedings which are to continue to a conclusion, the commission is to base its decision on the determination of the reasonable market price of the gas and therefore shall apply the principles set forth in § 13C.

SECTION 6 of the bill deals with pending cases in which either a pipeline company or an independent producer is seeking a certificate of public convenience and necessity for the sale and delivery of natural gas in interstate commerce. It provides that any such contract under which deliveries of gas had not commenced before February 1, 1957, and for which a permanent certificate has not been issued prior to the effective date of the amendments, will be subject to scrutiny in the certificate proceeding as to the reasonableness of the proposed price.

There are presently pending proceedings in which the prices proposed are higher than any heretofore paid in the area from which the gas is to come. These pending proceedings are to continue to a conclusion, and in passing upon the application for the certificate of public convenience and necessity the commission is to determine whether the proposed price exceeds the reasonable market

[2] See Report on HR 6645, pages 9 to 12.

price at the point of delivery of the gas. If the commission does find that the proposed price is in excess of the reasonable market price, the commission is directed to deny the certificate and the contract is to be null and void as of the time of such denial.

In concluding this statement, I wish to emphasize again that HR 6790 contains provisions for the direct regulation of the price which the producer may charge for gas sold to the natural gas company and which in turn is sold to the distributing company for ultimate distribution to the public. The bill establishes, for the first time, a legal right in a distributing company to a review of the pricing provisions of a new contract at the time of its filing.

In summary, the procedures and methods set up in this bill meet the objections which the distributing companies made to the Harris-Fulbright Bill.

We firmly believe that the interests of the distributing companies will be protected by the enactment of HR 6790.

Addendum

Since the preparation of the foregoing paper the Committee on Interstate and Foreign Commerce of the House of Representatives has reported out, with recommendation for passage, what is referred to in the common parlance of Congress as a "clean" bill. This bears the designation of HR 8525 and was introduced by Mr. Harris on July 5th.

The new bill contains slight amendments which do not change the substantive character of the proposed legislation, and there is a complete renumbering of the sections of the bill and the new sections to be added to the Natural Gas Act. The purpose of this apparently is to create a sequence of sections that deal with regulatory problems. The numbering procedure now designates sections under Title I "Amendments to the Natural Gas Act," §§ 101, 102, and 103. The sections in the act as presently numbered from 14 to 24, inclusive, are renumbered to start with 21 and continue through 31. The additional sections which in HR 6790 were designated as 13A to 13G, inclusive, are numbered 14 to 20, inclusive. These new sections are all under a heading of "New Sections Added to the Natural Gas Act" and are contained in § 104 of the bill.

The treatment of pending proceedings is under Title II, "Provisions of Temporary Operation with Respect to Existing Producer Contracts," being §§ 201, 202, and 203.

In the amendment to subsection (b) of § 1 of the act a proviso has been added, reading: "that nothing in this act shall impair the taxing or conservation powers of any state or local authority."

The present prohibition against the commission suspending a rate for the sale of natural gas for resale for industrial use only is striken from § 4(e) of the act by § 103 of the bill.

All other changes are clarifying or deal with procedural methods. There is a separability clause (§ 203) which relates only to the proposals dealing with pending proceedings.

This revision in numbering makes the references which are contained in the foregoing paper understandable only by specific comparison of the two bills.

Natural Gas Regulation from the Producer Viewpoint

By GEORGE W. HAZLETT*

So that there may be no misunderstanding, two points must be noted at the beginning of this discussion. While I have been asked to present the producer viewpoint, the views expressed are merely my own, and are not to be attributed to any particular producer or group of producers. Secondly, what I have to say will not be a legalistic discussion, for the reason that, at least for the moment, the legal aspects are not the important ones.

The basic legal question involved in regulation of the producer who sells gas to an interstate pipeline company was settled three years ago by the Supreme Court decision[1] in

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[1] Phillips Petroleum Co. *v.* Wisconsin (1954) 347 US 672, 3 PUR3d 129.

the Phillips case. That decision imposed on the producer the status of a public utility, subject to regulation by the Federal Power Commission under the Natural Gas Act of 1938. The decision made no distinction between the producer and the pipeline company, in so far as regulation is concerned. Hence, in order to sell his gas to an interstate pipeline company, the producer must obtain a certificate of public convenience and necessity, and must file a rate schedule which is subject to review by the commission to the same extent as the rate schedules of the pipeline company.

If this status is continued, it is safe to predict that years of litigation will be required to settle the numerous problems that are peculiar to regulation of the producer. What the answers to these problems should be may offer a fruitful field for speculation, but the present rate of progress indicates that, in the absence of new legislation, complete solution may well await another generation of lawyers. Of more immediate concern is the Harris-O'Hara Bill, now pending in Congress, that would change the status of the producer by amending the Natural Gas Act. If enacted into law, this bill will exempt the producer from direct regulation although his prices would remain subject to scrutiny by the commission. In ultimate effect, the bill would make it unlawful for a pipeline company to pay the producer a price in excess of the "reasonable market price" at the point at which the producer delivers his gas. The proposed amendment presents no legal problem of any consequence. Instead, it raises questions of national policy, with implications that go far beyond mere legal considerations.

The Harris-O'Hara Bill, like the Harris-Fulbright Bill that was vetoed by President Eisenhower in the early part of 1956, has created a storm of controversy. It has been vigorously attacked by governors and mayors of the gas-consuming areas, as well as by members of Congress. For the most part, the argument has revolved around profit to the producer *versus* savings to the consumer, with little attention being paid to the fundamental question.

The Real Issue

UNFORTUNATELY, the debate concerning regulation of the gas producer has been carried on in a political atmosphere that has largely obscured the real issue, although the manner in which that issue is resolved may well prove to be vastly more important than the price of gas, either to the producer or to the consumer. The basic question now before Congress and the nation concerns the extent to which the federal government should undertake to regulate competitive business in the supposed interest of the ultimate consumer.

Never before, except in time of national emergency, has the federal government attempted to engage in this type of regulation. Instead, the economic system of our nation has always been based on the concept that, where competition exists, the free play of the forces of competition achieve far better results for the consumer, the producer, and society in general, than any amount of regulation by government. That regulation of the natural gas producer is directly contrary to this concept should be obvious, but the significance of imposing public utility status on the gas producer seems to have been overlooked almost entirely.

In this respect the position of the producer is in sharp contrast to that of the distributing company and the pipeline company. They have been regulated because they are granted monopolies, at least in some degree. The distributing company operates under a franchise which confers on it the exclusive right to supply consumers of gas within its area. After a certificate of public convenience and necessity has been obtained by the interstate pipeline company, no competing pipeline may be installed without showing that there is actual need for additional service. Hence, both the distributing company and the pipeline company are protected from competition in their respective fields, and it is consistent with our economic system that their prices be regulated on a public utility basis.

THE production of gas is quite different. It is a business that is open to all who are willing to risk their money in the search for oil and gas. No exclusive franchise is obtainable by anyone, no certificate of public convenience and necessity is required. All that is needed is a little capital, a little skill, and a considerable amount of initiative. Hence, the producer receives no protection from competition and no producer is placed in the position where the purchaser of gas

is forced to buy from him; instead the purchaser has complete freedom of choice in the selection of producers from whom to buy.

That the business of producing gas and oil is truly competitive should be apparent to anyone willing to examine the facts. Because anyone is free to engage in it, there are many thousands of producers competing with each other for the more attractive prospects on which to drill and for markets in which to sell what they produce. The extent of this competition is well illustrated in the offering of oil and gas leases under the Outer Continental Shelf Leasing Act passed by Congress in 1953. Bidding for offshore leases in the Gulf of Mexico has multiplied manyfold the prices being paid only a few years ago, all of which has profited the federal government by hundreds of millions of dollars.

The competition for markets is illustrated equally well by conditions that existed with respect to gas until a few short years ago. In the southwestern states, where by far the greater part of our gas reserves lie, the competition in the marketing of gas existed only among producers. For scores of years the amount of available gas so far exceeded demand that buyers were able to (and did) dictate the terms on which they would buy. Because producers were obliged to compete for a limited market, pipeline companies were able to buy all the gas they wanted at two or three cents per thousand cubic feet.

It is quite true that this condition no longer exists in most of the producing areas of the country. Conversion to gas of the "Big Inch" and "Little Inch" pipelines that were built by the federal government during the Second World War to transport oil and petroleum products from the Southwest to the Atlantic seaboard demonstrated the feasibility of long-distance transportation of gas. As a result, there has been a rash of new pipelines during the past eight or nine years. For the first time in producing history, these new pipelines introduced competition among pipeline companies in the purchase of gas from the producer, with the result that the producer has been offered prices that more nearly reflect the true value of his gas. Then, just when the producer, for the first time in his life, finds buyers actually competing for the purchase of his gas, he is told that free competition must be replaced by governmental control. It is small wonder that some producers have expressed a little bitterness about the events of the past three years.

To summarize on this point, the production of gas is no monopoly, but a highly competitive industry, with many producers—often hundreds or even thousands—competing with each other in a productive area. Sometimes, economic conditions have created a buyers' market, where the competition has permitted pipeline companies to buy at lower and lower prices. At other times, just as in every other competitive business, high demand has created a sellers' market which has allowed all the competing producers to obtain higher prices for their product. Such a sellers' market must not—any more in gas production than in other competitive industry—be mistaken for monopoly, which, under our system, alone justifies price regulation in peacetime on a public utility basis.

Although it is an obvious fact that the business of finding and producing gas is highly competitive, the advocates of regulation argue for governmental control on the ground that most of the gas is produced by twenty or thirty big companies. If this argument has any validity, it would lead to regulation of most of our basic industries. If the number of those engaged in a competitive business is to be the criterion for regulation, what of the automobile industry, where only three companies produce about 90 per cent of our motor vehicles? What of steel, where a majority of the production comes from only three companies? These are only two of the basic industries in which the number of substantial producers is far less than in the case of gas production. Actually, the fact that there are as many as twenty big companies engaged in the same business, as well as thousands of smaller operators, is ample evidence that vigorous competition exists.

Another argument advanced in favor of regulation of the producer is that the gas he sells to the pipeline company is the "very product" that is delivered to the ultimate consumer. Why this should be the controlling test is not explained, undoubtedly for the reason that no logical explanation is available. The sophistry of the argument is made apparent by the fact that it would not apply to gas manufactured from coal. Yet it is of

no interest to the consumer whether the gas delivered to him is natural gas or manufactured gas. The consumer is concerned with what he pays for gas, and not its source. On this point, it is the cost of installing, maintaining, and operating pipelines, compressors, and other equipment for the transportation and distribution of gas that makes up by far the greatest portion of the cost of gas to the consumer. Moreover, if there is any merit in the "very product" argument, it would be equally applicable in the case of airplanes and railroad equipment, since the airlines and railroads transport passengers and freight by means of the "very equipment" they purchase from unregulated manufacturers.

THE conclusion is inescapable that there is no basis in fact or in logic for distinction between gas production and any other competitive business, in so far as governmental regulation is concerned. Therefore, if the gas producer is continued in his present public utility status, a precedent will have been established for a new principle in our national economy. To what extent recognition of this principle may lead to federal regulation of other businesses only the future will tell.

However, the first step in this direction is the longest one, and it is the sad fact of history that a little regulation by government invariably breeds more and more regulation. Certainly, the principle established by regulation of the gas producer presents ominous possibilities for extension.

Perhaps the most obvious of these possibilities relates to oil production. The vast majority of gas producers also produce oil. When the producer acquires leases on what appears to be a good prospect and drills a test or "wildcat" well, he does not know until the well is completed whether he will find oil or gas or have a dry hole. On the basis of industry averages the chances are about nine to one that he will wind up with a dry hole, and about forty to one against his finding either oil or gas in worth-while quantities. Hence, a very large part—perhaps most—of the expenditures made by the producer go for geological and geophysical investigations, the acquisition of leases that mostly prove to be worthless, and the drilling of test wells that mostly prove to be dry. These so-called "finding costs" must be recovered by the producer out of the oil and gas he finds and produces, if he is to stay in business. Moreover, these finding costs have more than trebled in the past twenty years, partly because of increases in the cost of materials and labor, but mainly because it has become necessary to drill ever deeper and deeper to find new reserves of oil and gas.

IF the producer retains his present public utility status, and if, as some advocate, his prices must be based on costs, it would be necessary that his finding costs be allocated between oil and gas. While it is a relatively simple matter to determine the amount of these costs, their allocation between gas and oil presents a most difficult problem. A variety of methods have been suggested, but the fact is that any method of allocation can be nothing more than a purely arbitrary formula. As such, it will be only accidental if the formula finally adopted achieves a fair result in any case, and it is inconceivable that any one formula would work fairly in the case of every producer.

The difficulty of allocating finding costs between oil and gas is only one of the problems confronting the commission because of the fact that oil production and gas production are so inextricably interwoven that they cannot be separated. This makes it quite possible that the time may come when the commission will have little choice but to inform the Congress that it cannot do an adequate job of regulating the gas producer unless it can also regulate his oil production. Should this happen, it will not be the first time that complete federal regulation of oil and gas production has been proposed. It might well be seized upon by advocates of governmental control as an excuse for subjecting the entire industry to regulation.

IF the principle established by regulation of the gas producer is based on the circumstance that he sells to public utilities, there is no reason to expect application of the principle to remain limited. For example, coal is of such primary importance in the production of electric energy that the power companies now provide the largest single market for coal. In 1956, more than 35 per cent of all the bituminous coal produced in the United States was sold to electric power companies.

Industry statistics indicate that the mine price of coal represents more than 35 per cent of the total cost of producing electric energy by means of coal. And the mine price of coal delivered to the power companies has been steadily increasing. Here is a fertile field for application of the new principle of regulation. What the power company pays for coal represents a higher percentage of what the consumer pays for electricity than that represented by the price paid to the producer in the case of gas. Moreover, every argument advanced in favor of regulation of the gas producer applies with equal or greater force to the coal producer. He, too, sells to utilities that serve the public, and the energy inherent in the coal he sells is delivered to the consumer in the form of electric current.

If regulation is to be based on supposed protection of those served by utilities, what of the manufacturers of pipe, compressors, generators, railroad equipment, airplanes, trucks, motorbuses, and the like? Why should these manufacturers be permitted to sell to public utilities on the basis of market prices, rather than government-regulated prices? The answer is clear: Once the principle of federal regulation of a competitive business is established, the possibilities for its extension to other industries are obvious.

WHETHER or not there is any limit on the power of Congress to control prices as an incident to the regulation of interstate commerce is a question that cannot be answered with certainty at this time. However, it is significant that not one of the opinions handed down in the Phillips case expressed the slightest doubt concerning the authority of Congress to regulate producer prices under the Natural Gas Act. Other Supreme Court decisions of recent years contain indications that the manner and extent of the exercise by Congress of its power to regulate interstate commerce may be almost unlimited. Since the court has further held that this power exists wherever interstate commerce is affected, it is by no means impossible that it might extend to intrastate sales that have any effect on interstate commerce—that is, practically all sales of any consequence.

Thus, the legal basis for federal regulation has been established. The only remaining question concerns the extent to which Congress will exercise its power. At least a partial answer may come out of the proposed amendment of the Natural Gas Act.

The Proposed Amendment

THE Harris-O'Hara Bill, if enacted, would free the producer from his present public utility status by exempting him from direct regulation by the commission. No longer would he be required to obtain certificates of public convenience and necessity or to file rate schedules, in order to sell gas to interstate pipeline companies.

In addition to lifting public utility status from the producer, the pending bill treats natural gas as the commodity it actually is. While the commission is required to limit the price received by the producer to a "reasonable market price," the bill requires that gas be considered a commodity and forbids use of any "cost-of-service" or other public utility method in determining what constitutes a reasonable market price. In these respects, therefore, the bill represents a reaffirmation of the desirability of not regulating a competitive industry on a public utility basis.

It has been argued by some that the bill would leave producers entirely unregulated. This is not true. In addition to limiting the price to a "reasonable market price," the bill would take away from the producer the protection of certain types of price escalation clauses by making them illegal and void in producer contracts made after enactment of the bill.

The prohibited provisions include the "favored nation" clause, under which the producer becomes entitled to a price increase whenever the buyer pays a higher price to another producer in the same area, and the "renegotiation" clause providing for redetermination of price at stated intervals, usually on the basis of the average of the three highest prices then being paid in the area.

WHILE contract provisions of this kind are considered essential by the producer, they have become anathema to the distributing companies in particular, because of the long time that elapses between the filing of a new rate schedule by the pipeline company and its final approval by the commission.

Although the increased rate is frequently collected by the pipeline company un-

der an undertaking to refund any part that is disallowed by the commission, the distributing company usually is not permitted to increase its own rates until after the pipeline rate is approved by the commission. Conceding that the distributing companies have cause for complaint on this score, the fault lies with the practices of the regulatory agencies, and not with the producer.

By banning these price escalation clauses, the bill would place the producer in a difficult position, for the reason that it has been the uniform policy of the pipeline companies (and the commission as well) to require that producer contracts be for terms of at least twenty years.

In effect, the bill seeks to confine the producer to fixed prices. It may be said with safety that there is no other business in which the seller of a commodity is asked to sign a firm contract for twenty years or more at a fixed price.

WHILE this feature of the bill is very distasteful to the producer, most of the opposition to the bill comes from consumer interests. Their opposition has been based mainly on the contention that application of the reasonable market price method would result in higher cost to the consumer than use of the cost-of-service or utility rate base method which they believe will ultimately be applied to producers under existing law. The validity of this contention is highly questionable, as there is considerable evidence that application of the cost-of-service method to producers would actually increase their present prices. In fact, some producers have expressed opposition to the bill for this very reason.

The only evidence available to date is that brought out at hearings in three of the proceedings instituted by the commission to review the rates of producers. Hearings before examiners have not been concluded in any of these three cases, but in each the major issue is the allocation of costs between oil and gas.

Many different methods have been suggested for the allocation of costs and investment between oil and gas. As might be anticipated, the commission's staff in each of the three proceedings above mentioned has advocated a formula designed to keep the producer's price as low as possible. Despite this, present indications are that application of the formula would, in most cases, entitle the producer to prices in excess of his current prices. Other formulas that are at least as logical, and certainly more realistic, would justify producer prices that are far above those now being paid.

IF the producer is to be regulated under a cost-of-service formula, years of hearings before the commission and litigation through the courts will be required to settle the virtually insoluble problems concerning allocation of the producer's costs. Until final answers are obtained in the form of court decisions, we shall not know the effect of cost-basis regulation on the producer's prices. The most that can be said at this time is that the utility method of rate making may well result in prices considerably higher than those now in force.

Of course the level of prices resulting from utility-type regulation is not the real issue. As I have stated, the real issue is whether the federal government should regulate a competitive industry as a public utility. In my opinion the enactment of the Harris-O'Hara Bill would reaffirm our traditional policy that public utility-type regulation should be confined to industries which are virtual monopolies.

Leaving the Harris-O'Hara Bill, I would like to take issue with the view that the present level of gas prices is high. The fact is that gas did not begin to bear its fair share of finding and development costs until very recent years. The increased prices now being paid to the producer appear high only because the price was ruinously low for so long a period of time. It is for this reason that, in most parts of the country, gas is still a bargain to the consumer. Because of its superiority in efficiency, cleanliness, convenience, and reliability, the ordinary rules of economics would make gas a premium fuel. However, even in cities adjacent to our largest coal mines, the home owner finds gas to be his cheapest fuel.

THIS circumstance has been of serious concern to the coal industry, as evidenced by a nation-wide study concerning the consumption and prices of natural gas between 1939 and 1953, the results of which were published by the National Coal Association

in December, 1954. According to this study, consumption of natural gas increased 223 per cent during the period of fifteen years, but its cost to residential consumers increased less than 18 per cent. Since the period covered by the study ended less than six months before the Supreme Court decided the Phillips case, this result was accomplished during a time when the producer was entirely free from federal regulation. The significance of this fact, as well as the further fact that since 1939 the cost of coal and heating oils has doubled or more, is ignored by the proponents of regulation.

Although gas must compete with other fuels, it seems to have become the fashion to put the gas consumer in a very special category for the purpose of price protection. It has been argued in all seriousness that the producer's prices should be regulated so as to assure the home owner who installs a gas furnace that the cost of gas will not increase. This kind of assurance is neither given nor expected with respect to any other fuel or, for that matter, in respect of any other commodity. Moreover, the very state and local governments whose spokesmen are urging regulation of the producer have not hesitated to add to the home owner's burden by increasing his taxes. The fact is that the taxes imposed on the home owner, as well as the cost of coal and heating oils, have advanced far more than the cost of gas.

THE circumstance that gas must compete with other fuels for the consumer market affords the best assurance that it will not be overpriced. The producer is quite aware that gas must be sold to consumers at prices that are competitive in relation to coal and heating oils. He fully realizes that if the price of gas becomes too high, consumers will change to coal or oil, just as, during the past ten years, vast numbers of consumers have changed from coal to gas.

The producer also knows that competition in the fuels market will always put a ceiling on the price of his gas. No matter how high his costs may be, no pipeline company will undertake to buy his gas at a price that would make the cost to the consumer out of line with that of competing fuels. Since the reasonable market price of gas in relation to other fuels will always put a ceiling on the producer's prices, he considers it no more than fair that it should provide the floor as well. In this respect, the producer seeks no handout, he asks for no subsidy. During the scores of years when the price he received was far below cost, he neither sought nor received the aid of our federal government. Today, as in the past, he is quite willing to take his chances on market prices fixed by the normal operation of the forces of free competition, even though there is substantial evidence indicating that the fixing of prices on the basis of costs would result in prices higher than those heretofore arrived at through the competitive process. The producer, at least, recognizes that price is not the real issue presented by regulation.

IF we are to be even slightly realistic, it must be recognized that to continue the producer in his present public utility status will express lack of confidence in the ability of the competitive system to achieve a fair result. Since the business of finding and producing gas and oil is open to all, and is in fact competitive, regulation of the producer necessarily asserts that governmental control is superior to free enterprise in at least one competitive business. Failure to enact legislation to free the producer from direct regulation of this nature would be the first step in the direction of a controlled economy.

Whether the substitution of government controls for the forces of competition would be good or bad for the nation is beyond the scope of this discussion. If we want to try a controlled economy, we are entitled to do so, whatever the results may be. However, if we want to preserve our traditional competitive system, we must recognize and avoid the kind of federal regulation that will undermine that system. Let us not be deceived by false issues and allow a system of government controls to creep up on us without our realizing what is happening.

APPENDIX

Procedures for Progress

By CAPTAIN EDDIE RICKENBACKER*

PROBABLY no other members of our highly developed state of society have to listen to more speeches than do those who are associated with the distinguished profession of the law. That I, a layman, was invited to address this highly specialized assemblage of such impressive legal talent, I consider to be a high honor.

To begin with, I wish to stipulate that I am grateful for this unusual opportunity. Because of the triteness of that expression, so common to the introductory remarks of all speakers, I wanted to cite this particular circumstance in my case: I really mean it.

Like everything else we humble mortals do these days, I have had the benefit of counsel with respect to the remarks I have been asked to deliver today. Not only has the chairman of your Section of Administrative Law advised me, but his boss, the general counsel of Eastern Air Lines, has most properly prepared me. Many of you may know our general counsel personally. Most of you, I am sure, have known him as the most recent past president of the American Bar Association, a distinction and a recognition of which we, in Eastern, are justly proud.

With true professional zeal and devotion to the formalized procedural approach to this occasion, he prepared me with an encyclopedic outline of suggested notes. They were made up entirely of nine syllable words, none of which I could pronounce, liberally garnished with fine Latin phrases, none of which I could understand, but all of which, I was assured, would be properly impressive and admissible to you, even though they were completely incomprehensible to me.

I TELL you this because I want to be sure that you understand that my counsel did his duty. On his behalf, and on behalf of his distinguished associate and the chairman of your Administrative Law Section, Harold Russell, I wish to enter here a disclaimer for anything that I may happen to say.

The extenuating circumstances are these: In considering this occasion this afternoon, I could not help but recall that, so it seems to me, I have had to listen to lawyers most of my adult life. This privilege your invitation accorded me suggested a rare opportunity.

Unfortunately, after my eminent counsel was suddenly called out of town, I discovered that I had somehow misplaced all the notes he had so carefully prepared. Hence, I have no alternative but to throw myself on the mercy of this august body and to go ahead, without benefit of counsel, and make a few layman's remarks. These convictions, I submit, entitle me to say a few things about lawyers—out loud—instead of under my breath.

As you so well know we, in the air-line industry, are the most thoroughly regulated, the most severely circumscribed, of all of the elements of a struggling free enterprise system subject to the legislated controls of government alphabetical agencies. The reason for this must be the fact that aviation was already thirty-five years old before legislators in considering the Civil Aeronautics Act ever concerned themselves more seriously with us than to keep an eye on the amount of money that could be meted out to us, much as an indulgent parent might do for growing and somewhat irresponsible children.

Back in 1938 when this act was passed, we were considered still to be somewhat irresponsible but there were those among our legislators who felt, even if they still could not clearly see, that there was a promising potential for good in the airlines. As a result, and in keeping with the new political philosophy of the day, in the regulatory safeguards created for our upbringing was included everything in the book—plus.

THAT the air-line industry has grown into a vital element of our national economy and security, under all the difficulties we can point to in the past, is a measure of that potential of aviation which, I have always believed, will, in time, change our whole concept of living—for the better—and, one day, will be the means of bringing peace to all mankind on this earth.

The Civil Aeronautics Act of 1938 is, in my opinion, a sound, farsighted, and capable

* Chairman of the board, Eastern Air Lines, Inc.

law. There are areas which, experience indicates, could be improved by more careful definition and these, I am confident, will be amended in time. However, the administration of the Civil Aeronautics Act, through the years, has not, it seems to me, been all that it should have been, or which the importance of civil aviation to the public interest justifies.

The popular thing to do, of course, is to blame all of our woes on the Civil Aeronautics Board. But, in the first place, the members of that board function under great handicaps. And, until the Congress and the people more fully understand the true significance of aviation and the real relationship of the air transportation industry to our national economy and well-being, many of those handicaps will continue.

Until the agency is truly independent, until it has what it takes to make its decisions wholly responsive to the facts, impervious to selfish interests and manipulated pressures, until it has the dignity and respect for its decisions that its judicial character justifies and requires, the administration of the Civil Aeronautics Act is going to continue to be characterized by convulsions, contradictions, and confusion.

THE basic consideration due any case presented to a regulatory agency is a fair trial based upon consideration of the issues. If proceedings result in the feeling that the issues and the facts are not fully and fairly considered, then a loss of confidence in the agency's regulation must follow. And this loss of confidence, inevitably, breeds irregularities.

Delays in processing applications, whatever their cause, can produce the same unfair result. A rough-and-ready justice, promptly rendered—particularly when the parties can be confident that their facts and arguments have been fully and fairly considered—can be far better and more acceptable for all concerned than a long-drawn-out and highly formalized conclusion.

There must be a tremendous area for improvement in procedures where incalculable costly time and effort go into the development of tremendous factual records which, so often, have little or no relation to the final decision. There are many cases where months, and even years, have been devoted to the development of such records, but where the board, in a matter of a few hours of oral argument and what cursory study its members can give to the matter, must make its decision.

There has been much serious and deserved thought given to the elementary matter of the examiner and his relationship to the whole process. The examiner, certainly, is the one, and often the only one, who is thoroughly familiar with the entire record. As a matter of logic, it would seem that the examiner's opinion, based on what the record shows, should be weighted against all other considerations except those having to do with fundamental national policies which, in some cases, could outweigh the economic aspects of the public interest where foreign policy or the national defense is directly concerned.

Yet, the answer does not lie in improving the position of the examiner. But the ability of the examiner to render a fair and independent opinion, again, can be measured only in relation to the basic independence of the agency, itself, and its freedom from molestation and influence.

THESE are matters upon which you, gentlemen, are much more competent to pass than am I, a layman. And I will confess that I have as often been confused and confounded by the conduct of counsel before the agency, as I have been by some of the decisions the agency itself has handed down.

The complex mass of technicality with which relatively simple matters are processed cannot contribute to fairness, equity, or expedition in the handling of cases before regulatory agencies. Under highly technical and legalistic interpretation of due process and formalized procedure, I have spent the most unpleasant and unproductive years of my life. I have sat for hours, and sometimes for days, firm in my faith in the democratic process, but unable to make any sense whatever out of extended cross-examination by counsel that wanders off in all directions, entirely away from the subject at hand, and seldom if ever comes up with anything of value for the record.

Hearings, themselves, are time consuming and effort wasting enough without thus compounding their faults and penalizing their

virtues. Technically, counsel are no doubt within their rights. Technically, too, the examiner of the board must sit patiently by, while the words flow and the stenographic record grows. Perhaps, all this is essential. I only know that, if we tried to run a business that way, we would be bankrupt in thirty days!

Technicalities do not protect justice necessarily. Because of the unrealistic power of the technicality I, as a witness, have had more curves thrown at me than Yogi Berra has to catch in a world's series! I have seen fouls that were obvious to everyone in the hearing room go down in the score book as hits because the bat, at some point or other, technically hit the ball!

And, more than once, I have been left stranded on third base while a teammate from my own industry blithely galloped from second right over to the pitcher's box and slid into home with the winning run. And for that performance, he was rewarded with a certificate for the most valuable player!

I QUESTION very seriously whether fetish adherence to old customs and technical procedures, which have little to recommend them but their age, is appropriate in dealing with such a dynamic industry as aviation. I firmly believe that the conditions justify and demand an equally bold and dynamic approach.

I said earlier, that the air-line industry has been growing. How we are going to be able to grow, and how fast, will be determined, to a vital degree, on the solution of the problems involved in these regulatory and economic factors of our being. In many ways, the procedural machinery, and, particularly, the philosophy under which we are being regulated today, was originally designed for an airplane that traveled 150 miles an hour, cost $100,000, and carried twenty-one passengers. The airlines which operated these aircraft were still dependent on government subsidy for their day-to-day survival. Air mail was our most profitable cargo and the air passenger was still considered to be a man of distinction.

Today, these same airlines are operating aircraft that travel at 350 miles an hour, cost $2.5 million each, and carry from seventy to one hundred passengers. Every major airline in the country is free of government subsidy—in Eastern's case this has been true for eighteen years. Air mail represents approximately 1.8 per cent of Eastern's gross revenues, and 2.5 per cent for the industry. The airlines have outstripped both the railroads and the intercity buses as the primary passenger carrier in the United States. Our tariffs, from which we must realize 97 per cent of the income we need to stay in business and to finance our continued growth, are still anchored, by our regulatory agency, to the level determined by conditions of thirty years ago.

Tomorrow, these same airlines will be operating jet-powered aircraft that will travel at 600 miles an hour, will cost between $5 and $6 million a unit, and will carry from 100 to 150 passengers.

AND this, gentlemen, is only the first step into a future of unlimited possibilities. It is a future which we are being forced into, by the fantastic progress of technological knowledge, a future which we are ready, willing, and able to embrace—*if*. That *if* depends, more than anything else, upon the realistic recognition of our needs by the agencies of government charged with fostering, developing, and regulating air transportation for the United States.

I believe I can speak, not merely from the standpoint of regulated industry, but also from a knowledge of the desire of the American people for justice promptly arrived at.

And I know that regulated industry, and the American people, will support you lawyers in your efforts to provide for quicker disposition of proceedings.

In our own experience, we have on file with the Civil Aeronautics Board applications for new routes which are ten to twelve years old and which have never been acted upon at all.

We have had delays of eighteen to thirty months between a prehearing conference and a hearing, due largely to the time required to get out the order consolidating applications for hearing.

Right now, we are in the midst of a proceeding on an emergency—an urgent plea for an interim fare increase proposal of about 6 per cent— and I might inject that we get less for our product today than we did in 1938, yet our product is three times

more valuable—and it looks as if it will require six months or more for a decision in that case.

An industry can be strangled by inaction as fatally as by wrong action.

We are to blame for those delays—you lawyers, the board, and commission who have moved slowly or not at all, the Congress which has required agencies to operate on shoestring appropriations, and we of the regulated industry and the public who have done nothing about the situation.

Now, though we want and we must have, prompt justice and action, we, regulated industry and the American people, will also demand decisions which are arrived at fairly and impartially.

We want the opportunity to present our facts and arguments without delay, legal red tape, objections, haranguing, and hassling, as well as wasteful time-consuming cross-examination.

We want to know that the board itself, or the person who makes the decision, knows the facts of record and our arguments, and makes the decision free of bias or pressure.

In this regard, you might well consider several things.

Despite your efforts and desires, commission members are not yet held in the same esteem, and their decisions are not yet received with the same confidence, as are federal district judges and their decisions, for example.

You might consider lifetime tenure for members of the major commissions—with higher pay, too—to attract and keep good men and to promote their independence and ability to decide cases solely on the basis of the facts of record and the law. Their decisions are fully as important as those of federal judges and, from the standpoint of compensation and tenure, they should be on the same level.

When a board member must go, hat in hand, every six years to the White House and to Capitol Hill, to keep his job, he naturally does not have the independence of a man whose job depends only upon his good conduct and performance.

Further, the present system results in a failure of continuity in office. For example, one CAB member now has less than three months on the job, one has about a year, one about fifteen months, one less than four years, and one less than six years. It takes time to become expert in the problems of air transportation. A new man has to work terribly hard to learn and we, of course, have to work twice as hard to help him.

Another important factor in this matter of a fair decision is freedom from influence not only from outside pressures, but from pressures within the organization of the board itself.

For example, in our current fare investigation case, the board's staff, its bureau of air operations, is taking a most active part in opposition to our request. It has presented exhibits and witnesses. It has argued, for example, that we should depreciate the DC-7B's we are buying today and in 1958 over seven years to a 25 per cent residual value—a proposal which, in my opinion, would utterly destroy our ability to accumulate sufficient cash and/or credit to acquire turbine-powered equipment of advanced design as it becomes available.

I understand that, under the present status of the law, however, the board's staff will be free to consult with the board about its decision after the case is submitted, even though we shall not have that opportunity. It seems to me to be basically and fundamentally unfair in such a serious situation, that one of the contestants can be invited into the inner sanctum where the decision is made but the other must be excluded.

That situation is all the more serious in this fare investigation for the reason that there will be no examiner's initial decision. Because of the delays, which have already occurred and the desire of the board to decide the case within the six months' suspension period of the proposed fares, the initial decision by the examiner will be omitted.

That again seems to me to be an unfair situation. The examiner is the one man who has seen all the witnesses, heard all the testimony, and read all the exhibits. Yet his entire time and effort have been wasted and no one will have the benefit of his judgment on the important factual issues involved.

It seems to me that the American people, and regulated industry, would be solidly behind any proposals which you lawyers might make to strengthen the position of the examiner, enhance his status, and to make sure

that the voice of the one man who is of necessity thoroughly familiar with the record is heard in making the final decision.

FINALLY, there is the unhappy situation that prevails when an obviously wrong decision may be rendered. Even when that decision is contrary to the most important facts of record, the regulated industry is comparatively helpless.

It is most exasperating to ask: Isn't there something we can do about this decision? Is there any basis for it? And then to be told that there is some slight technical basis for the decision and that no court would set it aside.

Rightly or wrongly, the layman in the regulated industry and the public have the idea that a board may act arbitrarily, capriciously, and without reason—and get away with it—as long as there is some evidence, just any evidence, in the record to support the conclusion.

Of course, I am no expert on the legalities of appealing board decisions. But I do believe that if the public felt a board decision could be just as effectively reviewed as a decision of a lower court judge, the public's confidence in the administrative processes would be strengthened.

As I see it, the proper and much-to-be-desired end result of any regulatory proceeding, from the standpoint of the regulated party, can be simply stated—a prompt decision, fairly arrived at upon the basis of the record, and free from outside pressure or influence.

If the procedural means to achieve that requirement could be as simply stated, then there would be no need for the concern or the study which the legal profession and the regulatory agencies are both giving the subject. The Civil Aeronautics Board has come up with some definite and sound improvements.

Other boards, with which I am not so familiar, no doubt have done likewise.

But the answer will not come from a resolution of your august organization, a new regulation by the Civil Aeronautics Board, or a self-serving statement of policy by the airlines.

THIS is your problem, too, gentlemen. We know enough from past history to show us our faults, enough experience to show us how to correct them. We must have procedures adequate to meet today's needs, administrative processes capable of anticipating tomorrow's requirements. We cannot wait until tomorrow to study them. *That* we must do in advance.

And this, gentlemen, is your challenge. How you will meet it, I do not know. But I am confident that you will meet it and that your studies will look ahead to the future needs, that your plan will inspire and promote that progress, of which our industry is capable and which the public and the nation have every reason to expect of us.

The progress we shall make in the administration of the law and by our regulatory agencies can only come from a sincere, honest, and understanding effort, on the part of the regulatory agency, the regulated industry, and the legal counsel who carry equal responsibility with them both. Only by working hand in hand can we perfect the means of assuring for this country's public and industry, and for this country's welfare and that of the free world, the tremendous progress which is almost within our grasp.

I urge you to do your part. Time is running short.

Proposed Administrative Procedure Code

By J. W. McAFEE*

THE invitation to take part in this discussion of the proposed administrative procedure code impelled me to take a more scrutinizing look at this important field than I had done for many years. Any investigation of the subject is a reminder of the enormous expansion of regulation in this country in the last forty years and the extensive development of administrative law and agencies which have resulted.

More interesting to me, however, was the opportunity to review the very marked

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changes, not only of professional but particularly of public attitude, that have occurred in this relatively brief period. These shifts in public opinion have been related largely to procedural questions. Public interest in the law generally is confined to questions of substance, leaving to the profession the task of establishing satisfactory lines of procedure.

I attribute this anomaly, first, to a general recognition of the enlargement of the fields of regulation as a permanently established status and, secondly, to a majority conclusion that the growth and industrialization of the country have created a society of such complex nature that extensive regulation is a necessity and that it can be carried out only by agencies designated to superintend a particular area. Thus, having accepted the need and the solution as unimpeachable, defects in the result are attributed to the procedure employed.

WE are an impatient people with a ready tendency to scrap the old machine and build a better one on a new principle. This has been a great strength in the industrial field but it has made it difficult for our people to construct a consistent philosophy of government. Prudence and patience are essential to wisdom just as heedlessness and emotion are the enemies of sound judgment.

In the thirties, when this country and most of the world were suffering under a severe depression and when the perplexing social problems that it created seemed insolvable, the concept of an agency, staffed with experts, to whom these unwelcome difficulties could be handed, was generally accepted with unquestioning enthusiasm. There was little public attention to the rules under which the agencies were to work; in fact, anyone stuffy enough to question this splendid method of escaping the perplexities of government was readily condemned.

As the economy moved back to a high level, there has been a more critical examination of the results produced in the various agencies. This is as it should be for the law, in all its branches, must always and forever be developed and guided toward a more serviceable substance and a more exact administration.

Ridiculous as it sounds, there is a tendency to assume that any change, particularly if it is novel, is an improvement and that if a spoonful is good medicine, a pint is better. I remember that Henry Mencken once defined an idealist as "one who, perceiving that a rose smells better than a cabbage, concluded that it would make better soup."

MUCH of my respect for the American Bar Association Sections on Public Utility and Administrative Law has been for the steady and thoughtful leadership it has provided during these periods of marked change.

As you know, I appear as the officer of an electric utility; as part of an industry that has, of necessity, long been subject to regulation by a number of agencies—local, state, and national. In passing, I must say that the system works reasonably well and, in the main, produces a constructive result for the multiplicity of interests affected.

It is not my assignment to examine the proposed code of administrative law in detail or to attempt a technical analysis. It is, rather, to submit some observations on the underlying policy involved from the viewpoint of one continually subject to the application of regulatory machinery. I shall try to give some of the reasons which have led me to conclude that adoption of this code would hamper the agencies subject to it and, consequently, would not be in the national interest.

You will recognize, I am sure, that I have in mind regulation that pertains to the conduct of business and that my comments relate to the agencies whose activities are in that field.

The proposal, which seems to me the most objectionable, is that enlarging the scope of judicial review so as to authorize the reviewing court to consider whether the action of the agency is "clearly unwarranted exercise of discretion" and, more pointedly, is "clearly erroneous." This unavoidably puts a responsibility on the court to apply its judgment to the facts in order to conclude whether the agency's determination is erroneous. The term "clearly" is not sufficiently exact to amount to an effective limitation on the possibility of a factual review *de novo*. One may be in doubt but at that point he has found no error. Once it is concluded that a proposition is erroneous, that is the ultimate. Lawyers school themselves to think definitely and incisively. As Chief Justice Hale once said, "This court frequently may be wrong, but

it is never in doubt." Nothing creates more confusion and uncertainty than the use of inexact terms in conferring jurisdiction.

To replace the "unsupported by substantial evidence" test with one which offers the prospect of a much wider field of factual review is a step backward of serious proportions.

Administrative law has been expanded as a result of confidence in the notion that an agency, with a technically trained staff, with broad experience in a particular field, and with sufficient flexibility to permit it to adjust its action to the needs of its specialized area, could carry out the objective of established regulatory standards more satisfactorily than could be done by any other approach.

This premise, I submit, is inconsistent with judicial review of facts and the soundness of conclusions drawn therefrom. If we have lost faith in the premise, there is little justification for the administrative system.

In the complicated, fast-moving economy which we have and hope to maintain in this country, the things to be avoided as much as it is possible to do are delay, uncertainty, and confusion.

Permit me to give an elementary example from our industry: Forecasts show a need for additional generating capacity. Authority is sought for the project. A plan to finance the cost is devised and submitted to the appropriate agency. Opposition appears from holders of securities of from some other interest. It may be in good faith or it may be secretly motivated by an effort to obtain a trading position. The issues are heard and examined by people who are acquainted with the background of the business, who appreciate the time schedule involved in the undertaking, who are familiar with the specialized accounting concepts and with the technical terms employed. There is a conflict of evidence. There are questions about which there is room for sharp difference of opinion, but a ruling is made giving approval to the plan. A review is sought in the courts. Advice of counsel is sought as to the prospects. He says that the ruling is sound unless the reviewing court is of the opinion that it is "clearly erroneous" on the facts—that point would depend on the judgment of the particular court and could not be predicted.

Now what is to be done? If the judges disagree with the ruling, a new plan may have to be devised. The time lost makes it impossible to put a new plan into effect in time to prevent a power shortage; loss to the company; and great disadvantage to the community it serves.

I am fully aware that there are all sorts of risks and hazards in business; that all regulation requires time and that it is the job of management to plan ahead for these elements and assume responsibility for meeting them; nevertheless, please do not increase them to no good purpose. What assurance is there that the judges' view of what is correct and what is erroneous will be better if, in truth, it be as good, as the specialists who have passed on it?

Respect for our judicial system is strong in me. When it comes to maintaining the "rule of law," of confining jurisdiction and enforcing compliance with basic legal principles, our chief reliance must rest on them. That judges are expert in their fields cannot mean that they are superior in all.

I am somewhat fearful that broadening judicial review could have an unfortunate effect on the agencies themselves. If I were searching for a basis on which to criticize the work of regulatory bodies, I think I would look first at whether they tended to become overly dependent on precedent and, as a result, timid in making those distinctions between cases which appear very fine in the rational view but which may be very broad in their economic implications. An effort to determine from decided cases what a court might conclude on similar but not the same facts might, to some extent, detract from the degree of flexibility which I regard as of such practical importance in the regulatory field.

The portions of the proposal which strive for standardization in the various agencies are questionable. Here again the principle of specialization in wholly different fields requires sufficient latitude to permit the particular body to treat in a practical and efficient manner the specific problems to which it is committed.

From a policy standpoint I must question those proposals which detract from the established rule requiring exhaustion of administrative remedies as a condition to resort to court action. The rights of parties can be

adequately protected by judicial examination after the administrative proceedings are completed. To allow such proceedings to be interrupted would open the door to obstructive actions and to delays which in some instances could be disruptive of constructive attainment.

The cost of operations under the proposed code suggests a substantial increase in cost. Undoubtedly, the work of the courts would be increased. The recommendations divorcing the agency from contact, under specified circumstances, with members of the staff who had worked on the matter at hand, would, unavoidably, require additional personnel and duplication of work.

These few hurried examples are some of the points which have influenced me to believe that the code should not be adopted. I hope my choice of words has not left an impression of being arbitrary or severe. I have great respect for the work the Hoover Commission has done. Not the least of its many contributions has been to stimulate interest in important questions of government. It was a comfort to me to find that the commission was far from unanimous on various features of the task force report and that it withheld endorsement of the specific legislation.

DESPITE my opposition, I must say that I have much respect for what I believe to have been the objectives of the task force. There is running all through the work a clear desire to strengthen the rights of parties as against the encroachment of the power of government. This is a high ideal and one which has always been given top priority in our judicial system. However, the agencies that are affected by the code are closely related to all three divisions of government. The result of agency action may affect not only the parties to the record but, as a practical matter, broad segments of the public. There is no question of compelling the agency to observe the constitutional and fundamental legal rights of the parties. That, I submit, is already provided for. The issue really is, shall we construct a procedure which will recreate the agencies in the image of the courts, with the objective of going beyond the protection of the parties' purely legal rights so as to guard them from possible errors in determining facts and applying judgment to them?

We come, in fact, to one of those balances of convenience, which are so necessary in the government of a free society. Some rights are sacred to the party; others may be accorded unless, by so doing, too much is detracted from the general public interest in obtaining an efficient and economical result.

Mr. Syngman Rhee once quoted to me some advice he had received as a boy from his mother. She said: "Son, the perfect is sometimes the enemy of the good."

The Proposed Code of Federal Administrative Procedure

By STARR THOMAS*

THE enactment of the Administrative Procedure Act in 1946 reflected a widely felt need for reform of administrative procedures. The movement was sparked by the rapid multiplication of federal agencies during the 1930's and by the excesses of a number of newly created agencies. Quite naturally there were conflicting views as to just how far such legislation should go in curbing agency powers and in reconciling the public interest in effective functioning of the agencies with the equally important need to protect the rights of private litigants.

The result—the Administrative Procedure Act—was, as might be expected, a compromise. The late Justice Jackson said that the act "represents a long period of study and strife, settles long-continued and hard-fought contentions, and enacts a formula in which opposing social and political forces have come to rest." (Wong Yang Sung *v.* McGrath (1950) 339 US 33, 36, 40.)

Of course, this does not mean that the Administrative Procedure Act is to be regarded as the final answer. Like any piece of comprehensive legislation, it has been going through a "shakedown" period of application and interpretation. The results have not always been satisfactory and some were probably not anticipated. But the problems arising from this process of application and

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interpretation can and should be taken care of by appropriate amendments as the need becomes apparent.

There is also the fact that we are living in a constantly evolving society in which no piece of legislation can be expected to take care of all future problems that may arise. Continuing reappraisal of the act is therefore highly desirable in order that its provisions may be modified from time to time to keep pace with changing conditions.

But the present move to supplant the Administrative Procedure Act with a new administrative code is an entirely different matter. This move, which had its inception in the work of the Hoover Commission Task Force, represents one extreme of the opposing contentions which Justice Jackson said were settled and reconciled in 1946. The administrative code drafted by the Task Force and the less drastic code drafted by this association's Special Committee on Legal Services and Procedure reflect two basic assumptions. The first is that judicialization of the administrative process—the patterning of administrative procedures upon those of the courts—is essential to prevent abuses and protect private rights. The second is that the rôle of the courts in administrative determinations must be enlarged by broadening the scope of judicial review and by permitting the courts a wider latitude in that review.

I doubt that there is any widespread public support for these views such as that which led to the enactment of the Administrative Procedure Act. If there is, it has not come to my attention. But there is widespread opposition to them among those who practice before the independent regulatory agencies, such as the Interstate Commerce Commission, the Federal Power Commission, and the Federal Communications Commission. This opposition has been registered by the Section of Public Utility Law, by the Interstate Commerce Commission's bar, and by a number of other organizations.

Judicialization of their procedures and increased control by the courts could seriously impair the effectiveness of these independent regulatory agencies. They deal with highly complex and rapidly changing economic problems and their procedures must be flexible and adapted to the specialized character of those problems. The advantage of uniform regulatory policy administered by a specialized and expert body cannot be retained if the control of the courts over agency determinations is substantially increased. The delays occasioned by detailed procedural requirements and by the increased opportunities for judicial review would be a serious burden to regulated industries and would increase the expense of regulatory proceedings to all concerned.

Perhaps there is some need for establishing stricter and more detailed procedural requirements for the various boards, commissions, and offices in the executive branch of the government, which are subject to varying degrees of political control. But the independent regulatory tribunals are not subject to the same pressures as the executive agencies and should not be lumped with them. Those who practice before the independent agencies are generally satisfied with their procedures, and continuing efforts are being made to improve them to meet the diverse needs of the different areas in which their regulatory powers are exercised. The agencies whose practice is represented in the Section of Public Utility Law represent the great bulk of all federal administrative practice, and there is no justification for forcing them into a common procedural mold with the numerous agencies in the executive branch which represent only a relatively small part of that practice.

Not the least of the objections to the proposed new administrative code is the uncertainties it will create. After eleven years, there is still a substantial volume of litigation involving interpretation of the Administrative Procedure Act and, no doubt, more to come. If it is replaced by a complete new administrative code, involving many new concepts, we can look to another and longer "shakedown" period of litigation which will hamper the work of regulatory agencies and delay essential relief to regulated industries. Such delays are of serious consequence to industries which cannot expand or reduce their services, raise or lower their rates or charges, or take other ordinary business action without approval from the appropriate regulatory body.

The proposed new code is not a simple document. Its full impact on the independent

regulatory agencies can be appreciated only after long and careful study—far more than I have been able to give to it. And, as might be expected of such an ambitious project, it contains ambiguities and uncertainties which can only be resolved by the courts.

Although neither time nor my knowledge of the subject will permit a comprehensive analysis of the proposed code, I shall comment briefly on some of its provisions which should be of interest to those who are concerned over its impact on the independent regulatory commissions in the public utility field.

THE proposed code would redefine "rule making" to include only matters of general applicability and future effect. (Section 1001 (c).) The definition of "rule making" in the Administrative Procedure Act includes matters of particular applicability and future effect, as well as matters of general applicability. And it specifically includes a number of matters such as the approval or prescription of future rates. As a result of the proposed change, general rate cases involving future rates would be rule-making proceedings; but in cases of particular applicability, the approval or prescription of future rates would be treated as "adjudication" and would be subject to different procedural standards.

This immediately raises a question of interpretation. What is a rate proceeding of particular applicability? Must it involve only a single carrier or a single rate adjustment? Or does it include proceedings involving comprehensive rate adjustments affecting numerous carriers and wide areas? The commentary by the drafters of the code says that "the prescription of a future rate to be charged by a named party, will constitute adjudication." But what about future rates to be charged by a number of named parties? Are they general or particular? Perhaps the courts will have to tell us.

THE next question is what are the practical effects of this changed definition? One is that in a rate case of particular applicability, an ICC examiner will not be permitted to consult with the cost section to assist him in analyzing technical cost data, although he will be free to do so in a general rate proceeding. Yet in either type of proceeding the members of the commission may consult with the cost section in reviewing the examiner's decision.

Another consequence is that in a case of particular applicability, the examiner must render an initial decision while, in a general rate case, he may render an intermediate decision or proposed report. This has some significance because, where an initial decision is required, the examiner's findings of evidentiary fact must be accepted by the commission unless contrary to the weight of the evidence.

These different procedural requirements for future rate proceedings of general applicability and particular applicability are not responsive to any felt need by those who practice before such agencies as the Interstate Commerce Commission. They are merely the incidental and inconsistent results of an attempt at uniform application of a somewhat theoretical distinction between quasi-legislative and quasi-judicial proceedings.

UNDER the proposed code, hearing officers would be required to render an initial decision in all formal adjudicatory proceedings where the agency has not presided at the hearing. (Section 1007 (b).) In formal rule-making proceedings, an intermediate decision or proposed report could be substituted for an initial decision (§ 1003 (b)), but in no case could the initial or intermediate decision be waived without the consent of all parties. This would delay important cases of an emergency nature which require expedited handling. In many cases—general rate cases, for example—substantial justice cannot be done under the usual procedure of an initial decision or proposed report followed by exception briefs and review by the agency. Someone stands to gain by delay in almost all regulatory proceedings in the utility field, so the provision for waiver would be of little value.

Pleadings in formal adjudication before the regulatory agencies would have to conform to the practice and requirements of pleadings in the United States district courts except to the extent that the agency finds conformity impracticable and otherwise provides by published rule. (Section 1004 (a).) The very fact that such an exception was thought necessary emphasizes the impracticability of attempting to control proceedings

before the varied and diverse regulatory agencies by court rules developed for protection of the rights of parties in private litigation.

If the exception means what it says, the only objection to this requirement is that it is hardly worth putting on the statute books. But, in view of some of the other provisions of the proposed code, it may cause trouble. The code provides that a reviewing court must set aside agency action if it is "not in accord with the procedures or procedural limitations" of the code (§1009 (f)). It also provides that the affirmative requirements of the code are to be broadly construed and the exemptions and exceptions narrowly construed. (Section 1011 (a).) Under such provisions we could almost certainly anticipate litigation over an agency's finding that conformity with court rules is impracticable.

THE rules of evidence and requirements of proof applicable to civil nonjury cases in the United States district courts are to be applied in formal proceedings, although certain types of cases such as those involving the prescription of future rates are excepted from this requirement. (Section 1006 (d).) This means that the rules of evidence in reparation cases before the Interstate Commerce Commission would be different from those in cases involving the prescription of rates for the future. Yet both types of relief are frequently sought in the same case.

No exception is made as to evidence in proceedings involving licensing, in spite of the objections of one member of the Special Committee on Legal Services and Procedure, who pointed out that the exclusionary rules of evidence—for example, the rule as to opinion evidence—would be clearly inappropriate where the question of "public convenience and necessity" is involved. Evidence on this issue frequently looks to the future and involves "prophetic estimates" of the sort to which the exception just mentioned relates.

It is true that court rules of evidence are to be applied only "to the extent practicable" but this limitation can only be productive of litigation over what is "practicable." The fact that certain types of proceedings are to be specifically excepted from the general requirement that court rules be applied would probably lead to a restrictive interpretation of the word "practicable."

AS I mentioned earlier, in formal cases where initial decisions are required, the hearing officer's findings of "evidentiary fact, as distinguished from ultimate conclusions of fact" could not be set aside by the agency unless contrary to the weight of the evidence. (Section 1007 (c).) According to the drafters of the code, the ultimate conclusions of fact which would be left to the agency are the board findings "usually in the language of the statute." The rest is left to the hearing officer, subject to limited review by the agency.

It seems to me that this proposal leaves too little authority with the agency which has the responsibility for evolving consistent regulatory policy under broad standards laid down by Congress. In carrying out such policy, it should not be regarded merely as an appellate court when it reviews the decision of its hearing officer. Frequently the findings on which the ultimate conclusions are based reflect the judgment and experience of the agency, particularly in proceedings looking to the future. Such evidentiary findings may well control the policy determination expressed in the ultimate conclusion.

The philosophy behind this proposal—that the hearing officer and the agency are to be regarded as analogous to trial and appellate courts—is at odds with the concept of the institutional decision which provides the real basis for agency expertise by enabling the agency to draw not only on its combined experience, but on the experience and expert knowledge of its technical staff. And, in considering this problem, it must be remembered that, under the proposed code, the hearing officer is barred from consultation with the technical staff.

AN interesting example of the difficulties in drafting uniform rules for diverse types of agencies is found in a provision of the proposed code which is designed to permit a licensee to continue operations while his license is up for renewal. The code would provide that, under those circumstances, the licensee's operations could be continued until final action by the agency and, in the event of denial, until "judicial review has been sought or the time for seeking judicial review has elapsed." (Section 1008 (d).) This provision overlooks the fact that there is no definite statutory time limit on actions seek-

ing court review of ICC orders. The doctrine of laches must be invoked to limit such suits.

This brief rundown of some of the provisions of the proposed code indicates the disadvantages inherent in any attempt to judicialize administrative proceedings by prescribing detailed procedural requirements for all regulatory agencies. Inconsistencies in treatment are bound to result because of the diverse character of the agencies. The very detail and complexity of the prescribed procedures are bound to delay administrative action—and delay is the curse of the regulatory agencies as well as the courts. Moreover, the detailed procedures of the proposed code will provide a check list for disgruntled litigants as a basis for attacking agency action in the courts. The resulting litigation can only produce further delays. And in evaluating the problem it must be remembered that deprivation of fundamental rights is not the sole or principal reason for seeking court review. The advantages gained in postponing agency action or the bare chance of securing a reversal are often a sufficient stimulus to the loser.

THIS brings us to those provisions of the proposed code dealing with judicial review—provisions which would subject the independent regulatory agencies to close supervision by the already overburdened courts. Not only would they provide a further spur to court litigation over agency action with its attendant delays, but they would deprive the public and the regulated industries of the advantages inherent in consistent and uniform economic regulation by specialized and expert agencies.

This represents a complete departure from the philosophy of regulation that has evolved through experience over the course of the last fifty years. Congress, in the case of the regulated industries, has assigned their supervision to such agencies as the Interstate Commerce Commission, so that complex economic problems might be dealt with by an expert body. And the courts have long recognized the importance of the specialized experience and technical competence of these administrative bodies and the need for uniformity of regulation, through the evolution of such practical doctrines as "exhaustion of administrative remedies," "primary jurisdiction," and the like.

THESE same considerations are reflected in the "substantial evidence" rule, which provides the standard for judicial review of agency fact determinations. For this rule the proposed code would substitute the "clearly erroneous" test applied by United States courts of appeal in reviewing findings of fact by district courts in civil nonjury cases. (Section 1009 (f) (7).)

Under this proposal, a reviewing court no longer would consider only whether the findings of fact are supported by substantial evidence on the whole record (Universal Camera Corp. *v.* National Labor Relations Board (1951) 340 US 474); but would make a determination as to the correctness of the findings. In this way a court, which had no expertness in the intricacies of specialized economic regulation, would be encouraged to substitute its judgment for that of the agency and give to the agency determination no more weight than to the decision of a nonexpert trial judge.

It has been argued that there is no longer any practical difference between the "substantial evidence" test and the "clearly erroneous" test and that the new test can be applied without substituting the judgment of the court for agency judgment; but there is substantial and highly respectable authority to the contrary. If there is no real difference between the tests, one wonders why the change is proposed. Obviously, the intent is to curb agency powers. The effect of such a change was well-expressed by a member of the Special Committee on Legal Services and Procedure who dissented from this proposal. He said that despite arguments to the contrary,

> . . . enactment of the "clearly erroneous" test would inevitably be interpreted as broadening the permissible scope of judicial review beyond the scope of the "substantial evidence" test; and if that is done, the result must be to authorize the substitution of judicial judgment for administrative judgment.

Certainly the deference to agency expertise goes out the window when the findings of the agency are subject to the same review as those of a nonexpert trial court.

ANOTHER invitation to the courts to invade an area presently occupied by the reg-

ulatory agencies is found in the proposal to permit reversal of agency action found to constitute a "clearly unwarranted exercise of discretion." (Section 1009 (f) (6).) The report of the Special Committee in support of this proposal recognizes that "One of the reasons for committing fields of government to agency action is the necessity for the exercise of informed discretion"; but says that "the possibility of abuse should be minimized, so far as practicable, by appropriate controls."

This is hardly a sufficient justification for so greatly expanding the review of agency discretion. Abuse of discretion is already a well-established ground for setting aside agency action and is specifically made so by § 10 (e) of the Administrative Procedure Act. By adding "clearly unwarranted exercise of discretion" as an additional ground, the proposed code would encourage reviewing courts to substitute their own views as to the soundness of the agency's discretionary action.

The well-established rule that the parties must exhaust their administrative remedies would be abrogated. Injunction suits against agency action would be permitted at any stage of the proceeding to challenge the "jurisdiction or authority" of the agency. (Section 1009 (g).) Regardless of the outcome, injunction suits to delay proceedings could be extremely harmful. In most types of agency proceedings some party stands to gain by delays of this character, and there can be no assurance that such injunctive powers would not be abused. The imposition of costs for frivolous suits, as proposed by the code, would not be likely to offset the advantages gained by delay.

THESE and other provisions of the proposed code, which are designed to increase the opportunities for court litigation and to inject the courts into the field of agency expertise, are not responsive to any demand from those affected by the regulatory agencies, in the public utility field. The existing relationship between the courts and the independent regulatory commissions in this field is in a reasonably satisfactory state of balance—permitting adequate court review to protect private rights and still preserving the advantages of agency expertise and uniformity of regulatory policy. There is much to lose and little to gain by the changes proposed in the Special Committee's draft code.

Report on Recent Developments in the Field of Atomic Energy

BY J. K. BUSBY*

IN discussing atomic energy from the standpoint of public utility law, the focal point is, of course, the development of atomic electric power. This is a subject which has been glamorized and spotlighted. Enactment of the present Atomic Energy Law in August of 1954, which for the first time made it possible for industry to own and operate power reactors, was widely heralded as the advent of a new era. There was a popular belief that because control of the chain reaction had been achieved, all major problems of nuclear power generation had been resolved. The expectation arose that economic nuclear power should be forthcoming promptly, and, not so very long ago, the statement was made that the great energies of the fission process could be so effectively utilized for power generation that electricity would become too cheap to meter.

However, as additional experience has been gained from the development programs that are under way, this overoptimism has been moderated by a calmer and more realistic appreciation of the nuclear facts of life. There has come to be a broader understanding of the technological difficulties and related high costs that are involved. It is now more generally appreciated that before the benefits of economic nuclear power can be obtained, extensive and costly research and development will be required. A factual recognition of the difficulties that are ahead is all to the good. Unless and until the public is adequately informed about the tough

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problems of technology and cost which affect the development of nuclear power as a competitive power source here in the United States, there will be continued criticism and controversy about the scope and timing of nuclear programs.

In short, we can now be reasonably sure that the technological problems of nuclear research and development work are going to be with us for some time to come, and further, that substantial sums of money will have to be committed in their solution. This in turn means that increased importance attaches to the regulatory treatment of expenditures in this field.

For this reason the first area I should like to report on is the action that has been taken by the state and federal public utility regulatory agencies.

Utility Regulation

In so far as state commission action is concerned, developments during the year have been consistent with the decisions of prior years authorizing electric utilities to account for nuclear research expenditures by charges above the line to Account 801, Miscellaneous Expense. Action approving such accounting treatment has been taken by the Michigan, New York, Virginia, Wisconsin, and District of Columbia commissions.[1] Comparable orders had been previously issued by the Michigan and Illinois commissions.[2] It is significant that these accounting orders do not appear to have been issued on a routine basis. In substantially all cases, through public hearings or detailed applications, or both, careful presentations were made to the utility commissions as to the substantive justification for incurring nuclear research and developmental costs. For example, the Michigan commission, in its accounting order approving operating expense treatment for nuclear research costs being incurred by Detroit Edison, found and determined as follows:

> That the public interest requires encouragement by this commission of the objective sought by petitioner to bring about the generation of electric energy at a reduced cost by use of nuclear fuels, which will also benefit the nation as a whole by increasing the supply of usable nuclear fuels, and by reducing the depletion of other forms of natural resources presently occurring by reason of the increased use of the older forms of fuels.[3]

Other state commission orders have approved loan guaranties by member companies of Power Reactor Development Company (PRDC), financing arrangements for Yankee Atomic Electric Company, and construction of Commonwealth Edison's nuclear power plant at Dresden, Illinois.[4] It may be noted that several of the orders approving loan guaranty obligations for utility companies in PRDC also authorized charges to Account 801 to cover any payments that were required to be made pursuant to such guaranties.[5]

In so far as the federal regulatory commissions are concerned, no orders have been issued by the Federal Power Commission. The Securities and Exchange Commission, acting under the Public Utility Holding Company Act of 1935, has approved financing arrangements for Yankee Atomic[6] and loan guaranties by the companies participating in PRDC.[7] Also, the SEC through the amendment of its Rule U-7 and by order declaring that PRDC is not an electric utility company, has provided further assurance that the Holding Company Act will not be applied in such a way as to hinder research and development programs in the nuclear power field.[8]

From this brief review of state and federal regulatory action, it may be noted that there has been no determination of the treatment to be accorded nuclear research costs for rate-making purposes. And no orders have dealt with the question of what is a reasonable annual amount which is allowable for nuclear research costs.

It seems clear that, consistent with the accounting orders already issued, regulatory authority should, upon a proper showing, approve nuclear research costs as allowable expenses for rate-making purposes. In the present as well as the past, research has greatly benefited the electric consumer. Indeed, it is fair to say that research has been the basis of the utility industry's fine record of advancing the quality and availability of service while at the same time reducing its cost. In view of this, it is to be expected that the cost of service would in-

clude the research costs that made possible these improvements. And traditionally this has been the case. For example, the cost to the utility of power plant components and other electrical equipment—which costs are recognized in cost of service—has normally encompassed the manufacturer's research cost.

However, in the development of atomic energy, this indirect inclusion of research expenses in the cost of service is not possible, since there is not as yet an established volume of atomic equipment being manufactured by suppliers and purchased by utilities. Consequently, during this formative period before the atomic industry has achieved a commercial volume of sales, direct research expenditures both by equipment manufacturers and by the utility industry are necessary.

ONE main justification for such research expenditures is the sharply rising trend of delivered fuel cost experienced in recent years. On top of this further cost increases must be anticipated. Because of these conditions, aggressive programs of atomic development are necessary if the competitive leverage of economic nuclear power is to be available to protect the electric consumer from the impact of increased prices of fossil fuels. And, taking a long-range point of view, we must recognize that while fossil fuel reserves are ample for the needs of today and tomorrow, such reserves are by no means inexhaustible in terms of expected future energy demands.[9] Thus, for this reason also, it is in the public interest that the utility industry now proceed with development of nuclear technology so as to permit utilization of uranium, plutonium, and thorium as alternative fuels.

It is not always appreciated just how much of a price increase may be involved by reason of higher prices of fossil fuels in the years ahead. Let us take a situation reflective of a utility on the eastern seaboard of the United States where delivered coal costs are high. Using a price of $9 a ton for delivered coal and assuming annual consumption of four million tons, the reasonable probability is that over the next twenty years such utility would pay $210 million of additional cost due entirely to increases in the cost of coal over such period. And if load growth be taken into account, the total increased cost, again due entirely to increases in the cost of coal over present prices, would amount to some $350 million, as is shown by the chart on page 516. In arriving at these figures, a rate of increase of 25 cents per ton per year has been used. This is something less than a 2 per cent annual inflation factor, a percentage which appears to be realistic in the light of what has been going on throughout the economy during the past few years.

IF these figures provide an indication of the increased cost of fossil fuel which may have to be passed along to the consumer in the form of an increased cost of service—and I for one firmly believe that these figures are a reasonable indication of what lies ahead in the absence of any effect of nuclear power—then it is essential for utility management to proceed with nuclear research. And it would seem prudent for regulatory authority to encourage such research.[10] To avoid and minimize such fuel cost increases by advancing the day of economic nuclear power, expenditures for nuclear development for a period of years of at least 5 per cent of current annual fuel bills would seem to be clearly justified as a part of the cost of service.

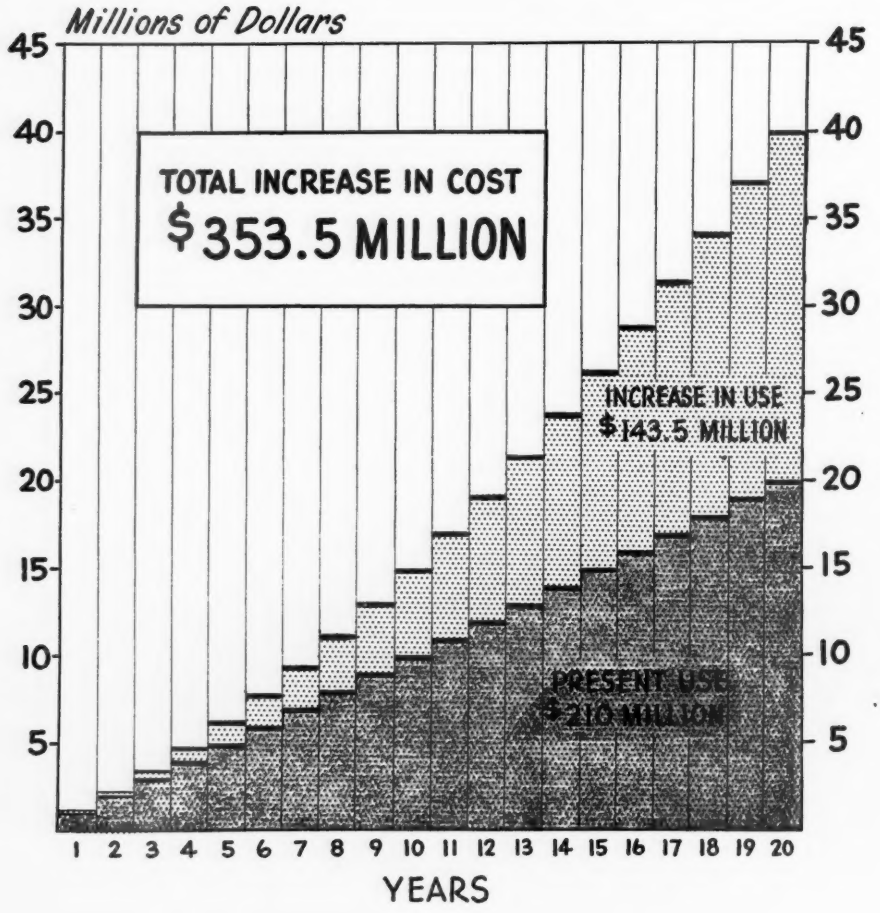
I should now like to turn to another area where important developments have been occurring—the nuclear power program under the Atomic Energy Act of 1954.

Progress in Nuclear Power Development Under the Atomic Energy Act

THE most noteworthy development has been the continued progress that has been made by the utility industry towards the development and construction of both large and small nuclear power plants. On May 3, 1956, the Atomic Energy Commission issued construction permits to Consolidated Edison Company of New York, Inc.,[11] for its proposed 275,000-kilowatt nuclear power plant,[12] to be located at Indian Point, New York, and to Commonwealth Edison Company for its proposed Dresden nuclear power plant of 180,000-kilowatt capacity.[13] On August 4, 1956, the AEC issued a conditional construction permit to Power Reactor Development Company for the proposed fast-breeder reactor being installed in

INCREASES IN COAL COSTS – 25¢/TON/YEAR

ANNUAL USE 4 MILLION TONS DOUBLING IN 20 YEARS



the Enrico Fermi power plant at Lagoona Beach, Michigan.[14] Heat from this reactor, which will be sold to Detroit Edison, will be sufficient to generate 100,000 kilowatts of electrical output.

On June 4, 1956, the AEC entered into a contract with Yankee Atomic Electric Company providing for research assistance in connection with the 134,000-kilowatt pressurized water type of nuclear power plant to be built by Yankee.[15] This was the first contract made by the commission in furtherance of its Power Demonstration Reactor Program. Recently, on March 26, 1957, the commission entered into a research assistance contract with PRDC[16] and several proposals by other projects are in the precontract negotiating stage at the present time.[17]

Within the past twelve months, a number of utility companies and utility company groups have announced additional nuclear programs, all of which, with one exception, are directed to construction of prototype reactors or full-scale power plants.[18] The exception is the project being undertaken by a group of Texas utility companies together with General Dynamics Corporation which calls for the expenditure of some $10 million for research in the field of utilizing fusion as a power source.

WHEN it is considered that the present Atomic Energy Act was only enacted in August, 1954, that prior to that time atomic know-how was largely vested in the government and its contractors, that there were security restrictions on gaining access to that know-how, and that by law industry ownership of nuclear reactors was forbidden, the progress that has been made within the brief span of three years since the passage of the new law is most noteworthy. A measure of industry's achievement in the field of nuclear power development is that all of the basic reactor types identified by the Atomic Energy Commission as meriting development within the period ending 1962 are either the subject of firm construction programs now under way, have been contracted for with the AEC under the Power Demonstration Reactor Program, or are the subject of negotiations following proposals which have been submitted to AEC.[19]

By way of summary, the Atomic Energy Commission has reported that all nuclear power projects under way, proposed, or planned by all utilities and groups, including co-operatives, municipalities, and public power districts, are estimated to require an expenditure of $700 million, covering 18 power reactor installations of small and large size having a total expected electrical capacity in excess of 1.5 million kilowatts.[20]

AN important factor in the progress made so far has been the Power Demonstration Reactor Program established by the AEC to carry out the policy of the Atomic Energy Act to encourage industry programs for nuclear research and development.[21]

Taking the Demonstration Program as a whole, and without regard for the various specific differences which have existed as between the first, second, and third rounds, the AEC has offered assistance to projects in the form of direct financial aid for research, performance of research, and experimental work in AEC facilities at no cost or less than cost, waiver for a limited term of years of the 4 per cent annual use charges which normally apply to government-owned nuclear fuel and heavy water, and supplemental research and development assistance during the first five years of power plant operation.[22] In some cases, projects undertaken by certain co-ops and municipalities, the AEC has agreed to pay for the capital cost of the reactor, which AEC will then own.[23] Also, the AEC announced earlier this year, as a step towards meeting the critical problem of fuel reprocessing, that it would do fuel reprocessing on a prescribed cost basis until commercial facilities were available.[24]

All in all, the Power Demonstration Program is proving to be an effective instrument for co-ordinating nuclear development work by government and industry.

IN recent months, however, financial control aspects of the AEC's Power Demonstration Program have been the subject of considerable comment and criticism by the Comptroller General and by Chairman Cannon of the House Appropriations Committee.[25]

A recent ruling by the Comptroller General provides that the AEC may no longer follow its past practice of entering into contracts under the Demonstration Program

which call for government assistance over a period of years and which are "subject to the availability of funds."[26] This appears to mean that AEC cannot make such a contract unless at the outset it has enough funds in hand or appropriated to meet the government's full obligations under the contract.

In addition, under a recent amendment to § 261 of the Atomic Energy Act,[27] before AEC can obtain appropriations to cover expenditures for the Demonstration Program it will first have to secure specific authorizing legislation. The authorizing legislation will encompass not only AEC's direct expenditures in connection with the various projects but also such noncash items as waiver of carrying charges on nuclear fuel. In practical effect, as the current hearings being held by the Joint Committee demonstrate, arrangements for assistance under the Demonstration Program will have to be separately negotiated and contracted for with the AEC, subject to a separate review by the Joint Committee and subject to the possibility that the committee could disapprove as well as approve any contract so made.

It is conceivable that the total effect of the rulings by the Comptroller General and the procedures established by the recent legislation will be to impede the Demonstration Program. But this need not be the case. The report of the Joint Committee on the new legislation[28] makes it clear that there is no such intent. Pending actual operating experience which will determine feasibility, the new procedure may prove to be a reasonable step towards a closer and more effective control of governmental expenditures.

OTHER developments of interest relating to administration of the Atomic Energy Act include the litigation involving the issuance of a conditional construction permit to PRDC for its proposed fast-breeder reactor. Hearings are still in process and it would be premature to attempt to draw any conclusions as to the probable consequences of the proceedings. However, it is pertinent to point out that the Joint Committee attached to the Indemnity Bill (S 2051 and HR 7383), which it favorably reported to the Senate and House on May 22, 1957, provisions establishing a statutory Advisory Committee on Reactor Safeguards to review and report on license applications and advise the AEC as to safety aspects. Further requirements were that the AEC hold public hearings on applications for construction permits and licenses under §§ 103 and 104, and that reports of the Committee on Reactor Safeguards be available to the public unless security considerations prevent disclosure.

It is also pertinent to point out that the Joint Committee during the chairmanship of Senator Anderson raised the question of dividing the developmental and promotional functions of AEC from the regulatory (licensing) functions which it also exercises under the Atomic Energy Act. There has just recently been issued a report, made at the instance of the Joint Committee, which reflects an investigation into many of the important questions that have arisen in connection with AEC's licensing procedures, the extent and scope of public hearings, and the publicity that should be given to reactor hazard evaluation reports.[29] Undoubtedly, all of these matters will receive considerable attention at the congressional level in the period immediately ahead.

THE past year has also been noteworthy because of the nonenactment of two much-discussed legislative proposals to amend the Atomic Energy Act. One of these is the Gore-Holifield Bill (S 151 and HR 2154) as to which the American Bar Association recorded its opposition in February of this year, and which appears to be dormant at present. The other is the Anderson Indemnity Bill (S 2051 and HR 7383) which was approved a year ago by the Joint Committee, and was again approved this year and passed by the House on July 1, 1957.[30] The several hearings that have been held show the need for this indemnity legislation and it is to be hoped that corresponding favorable action will be taken by the Senate during this session.

In addition to developments in the public utility regulatory field and administration of the Atomic Energy Act, there are two other major areas which merit at least brief discussion.

One of these is the regulation of health and safety at the federal, state, and local levels.

APPENDIX

Health and Safety Regulation

THE basic problem is the one of federal pre-emption. In some fields, such as labor law, we have seen the doctrine of pre-emption extended so that state action is precluded even where the National Labor Relations Board has declined to exercise jurisdiction.[31] Whether an equally strict rule will apply when health and safety are involved is by no means clear. Very possibly the Supreme Court will recognize that a state is not shorn of all power to establish controls over utilization of atomic energy where it does so in the name of protection of the health and safety of its citizens.[32]

Meanwhile, reflecting the march of events, several states have been taking action. Through new legislation and through regulations adopted by agencies acting under authority of existing law, state and local restrictions are being imposed.[33]

This gives rise to the secondary problem —overlap and inconsistency of regulation within the area of state and local jurisdiction.

It is easy to visualize the difficulties that will result if public utility commissions, departments of health and labor and industry, and air and water pollution boards all act independently in the safety field.[34]

Thus we have in prospect three main areas of conflict:

(1) Conflict between federal controls and state and local controls.

(2) Conflict at the state level as between state agencies having some degree of overlapping jurisdiction.

(3) Conflict between state and local controls.

I suggest that we all share an important responsibility that these conflicts do not so develop as to cause confusion, delay, and increased cost and detriment to the end purpose in view—protection of the health and safety of the public. This means that there must be extensive and thoughtful consideration of possible federal legislation defining the scope of permissible state authority,[35] and also of state legislation providing for the co-ordination of intrastate and local action by the several agencies and political units which have an interest in atomic energy utilization.[36]

Relationship of American Nuclear Development to Programs of Foreign Countries

FINALLY, I should like to call your attention to what in my opinion is a major development that should be considered by every public utility lawyer even though seemingly outside the field of public utility law. The development to which I refer is the report by the three representatives of Euratom recommending to the European community that a crash program of atomic power development be undertaken to achieve 15 million kilowatts of nuclear power capacity by 1967.[37]

This recommendation highlights the very great differences between the favorable conditions of fuel cost and supply which exist in the United States and the fuel shortages and high prices which exist in other industrialized regions of the world such as England, Europe, Western Russia, and Japan. In those regions, high-cost atomic power is apparently economic when considered in terms of prevailing fuel costs, diminishing fuel supplies, import restrictions due to low dollar balances, and the strategic considerations brought to the fore by the Suez crisis. For such regions, nuclear power provides a means of a normal and healthy continuation of industrial growth. Accordingly, over the years ahead, we should expect that areas outside the United States will build large quantities of nuclear generating capacity and will in consequence substantially surpass this country in the amount of nuclear kilowatts installed.

BUT quantity of installed kilowatts does not necessarily assure the greatest technological progress. The $2.6 billion English nuclear power program is primarily based on mass application of a single reactor concept—the Calder Hall design.[38] By comparison, programs in the United States include a great variety of types.[39] As Chairman Strauss of AEC pointed out in the § 202 hearings earlier this year, in discussing these American programs involving some $700 million and 1.5 million kilowatts of electrical capacity:

> The total kilowatt output of these plants is not, in my opinion, of paramount significance. Of much greater importance is the fact that these projects represent a

number of different types of reactors and that, from experience with them, will emerge the knowledge which will decide the technology best fitted to the economics of different conditions of location and supply of competitive fuels not only here but in other parts of the free world.[40]

The important question that arises by reason of the nuclear programs of power-short foreign countries, and a question which we shall have to face for several years to come, is whether the extensive building of nuclear kilowatts abroad will be permitted to stampede this country into a crash program of atomic development which is not justified either in terms of our own power needs or by the possibility of a profitable foreign trade.[41]

Conclusion

THE very considerable progress that has been made to date strongly suggests that we should proceed with, and further implement as conditions warrants, the present philosophy of combined and co-ordinated effort by industry and government. This philosophy provides a reasonable assurance that taxpayer funds will not be spent unnecessarily and also furnishes to industry an opportunity to carry forward an orderly program of atomic power development which is consistent with the public and national interest.

Footnotes

[1] Re Detroit Edison Co. (Mich) D-1282-A-56. 1,Nov. 9, 1956, CCH Atomic Energy L. Rep. 6806; Re Consumers Power Co. (Mich 1956) 15 PUR3d 471, CCH Atomic Energy L. Rep. 6805; Re Central Hudson Gas & E. Corp. et al. (NY) C-18122, Feb. 18, 1957; Re Potomac Electric Power Co. (Va) C. No. 13345, Jan. 7, 1957; Letter from Wisconsin Public Service Commission to Madison Gas & Electric Co. and Wisconsin Public Service Corp., Jan. 2, 1957; Re Potomac Electric Power Co. (DC) No. 3516/1, Order No. 4362, Mar. 19, 1957.

[2] Re Detroit Edison Co. (Mich) D-1282-A-55. 1, Mar. 23, 1955; Re Commonwealth Edison Co. et al. (Ill) No. 42638, July 19, 1955; Re Iowa-Illinois Gas & E. Co. (Ill) No. 42950, Feb. 8, 1956, CCH Atomic Energy L. Rep. 6627.

[3] Re Detroit Edison Co. (Mich) D-1282-A-55. 1, p. 5, Mar. 23, 1955.

[4] Re Potomac Electric Power Co. (DC) No. 3516/1, Order No. 4362, Mar. 19, 1957; Re Delaware Power & Light Co. (Del) D. No. 189, Jan. 31, 1957; Re Iowa-Illinois Gas & E. Co. (Ill) No. 42950, Feb. 8, 1956, CCH Atomic Energy L. Rep. 6627; Re Detroit Edison Co. (Mich) D-1282-A-56.1, Nov. 9, 1956, CCH Atomic Energy L. Rep. 6806; Re Consumers Power Co. (Mich 1956) 15 PUR3d 471, CCH Atomic Energy L. Rep. 6805; Re Central Hudson Gas & E. Corp. et al. (NY) C-18122, Feb. 18, 1957; Re Cincinnati Gas & E. Co. (Ohio) No. 26828, Mar. 1, 1957; Re Columbus & Southern Ohio E. Co. (Ohio) No. 26867, Mar. 1, 1957; Re Philadelphia Electric Co. (Pa) S. C. No. 2005, Nov. 13, 1956; Re Potomac Electric Power Co. (Va) C. No. 13345, Jan. 7, 1957; Re Wisconsin Electric Power Co. (Wis) 2-SB-671, Jan. 4, 1957; Re Yankee Atomic Electric Co. (Mass 1955) 8 PUR3d 114; Re Yankee Atomic Electric Co. (Mass) DPU 11173-A, June 30, 1955; Re Yankee Atomic Electric Co. (Mass) DPU 11957, Nov. 26, 1956; Re Commonwealth Edison Co. (Ill) No. 43336, Sept. 24, 1956, CCH Atomic Energy L. Rep. 6771.

[5] Re Potomac Electric Power Co. (DC) No. 3516/1, Order No. 4362, Mar. 19, 1957; Re Iowa-Illinois Gas & E. Co. (Ill) No. 42950, Feb. 8, 1956, CCH Atomic Energy L. Rep. 6627; Re Detroit Edison Co. (Mich) D-1282-A-561, Nov. 9, 1956, CCH Atomic Energy L. Rep. 6806; Re Consumers Power Co. (Mich 1956) 15 PUR3d 471, CCH Atomic Energy L. Rep. 6805; Re Central Hudson Gas & E. Corp. (NY) C-18122, Feb. 18, 1957.

[6] Re Yankee Atomic Electric Co. et al. SEC Holding Company Act Release No. 13048, Nov. 25, 1955; Re Yankee Atomic Electric Co. et al. SEC Holding Company Act Release No. 13339, Dec. 18, 1956. The commission approved the acquisition of Yankee Atomic securities by registered holding companies under § 9 of the act, and further ruled that such acquisitions did not alter the exempt status of the holding companies involved.

[7] Re Delaware Power & Light Co. SEC Holding Company Act Release No. 13381, Feb. 12, 1957; Re The Southern Co. SEC Holding Company Act Release No. 13383, Feb. 12, 1957.

[8] Re Amendment of Rule U-7, SEC Holding Company Act Release No. 13221, July 13, 1956; Re Power Reactor Develop. Co. (SEC 1957) 16 PUR3d 520; Letter from Ray Garrett, Jr., director, division of corporate regulation of the SEC, to Northern States Power Company, June 6, 1957, advising that Central Utilities Atomic Power Associates was not a public utility and that membership in CUAPA did not make any of the member companies a holding company; see "Nuclear Power Projects and the Holding Company Act," by the Hon. J. Sinclair Armstrong, May 23, 1957, p. 721, PUBLIC UTILITIES FORTNIGHTLY, Vol. 59, No. 11.

[9] Putnam, *Energy in the Future,* 231-40 (1953); Hearings before the Joint Committee on Atomic Energy—Atomic Power Development and Private Enterprise, 83rd Congress, 1st Session, 9, 10 (1953); Report of (McKinney) Panel on the Impact of the Peaceful Uses of Atomic Energy, Joint Committee on Atomic Energy, 84th Congress, 2d Session, Volume 2, 68-88 (1956).

[10] The accounting approvals noted in footnotes 1

and 2 above are related to contributions by utilities as members of a group project. The principles which justify an allowance for such contributions as a research and development expense are equally applicable to the case of an individual utility which directly finances, owns, and operates a nuclear plant on the same basis as a conventional plant. If the costs of the nuclear plant exceed conventional power costs, the differential should be recognized as a proper cost of nuclear research and be provided for on a reasonable basis through appropriate inclusion in operating expense.

[11] 21 FR 3084.

[12] Increased from initial capacity projection of 236,000 kilowatts, 163,000 kilowatts nuclear, 112,000 kilowatts oil-fired superheater.

[13] 21 FR 3085

[14] 21 FR 5974.

[15] The research and development expense to be assumed by AEC is to total not in excess of $5 million. This represents 9 per cent of the estimated $55 million capital and research costs for the project which is otherwise being entirely borne by an industry group. See Hearings before Subcommittee on Legislation of the Joint Committee on Atomic Energy, 85th Congress, 1st Session, June, 1957. In addition, AEC is granting waiver of use charges on the nuclear fuel for a five-year period.

[16] The research and development expense to be assumed by AEC is to total not in excess of $4,450,000. This represents 6.5 per cent of the estimated $69 million capital and research costs for the entire Enrico Fermi plant which is otherwise being entirely borne by an industry group. See Hearings before Subcommittee on Legislation of the Joint Committee on Atomic Energy, 85th Congress, 1st Session, June, 1957. In addition, AEC is granting waiver of use charges on the nuclear fuel for a five-year period.

[17] All proposals submitted under the second and third round of the AEC's Power Demonstration Reactor Program are still in process of consideration and negotiation.

[18] The New England Electric System and Pacific Gas and Electric Company have each announced nuclear power plant programs. New utility groups that have been formed include: Carolinas-Virginia Nuclear Power Associates, Central Utilities Atomic Power Associates, East Central Nuclear Group, Southwest Atomic Energy Associates, and Texas Atomic Energy Research Foundation.

[19] The basic reactor types originally designated by the AEC as meriting full-scale development were (1) pressurized water; (2) boiling water; (3) sodium graphite; (4) fast breeder; and (5) homogenous. CCH Atomic Energy L. Rep. 1525. In addition to the Shippingport project, a joint undertaking by AEC and Duquesne Light Company under the 1946 act, the pressurized water-type reactor is covered by the Consolidated Edison project (construction permit issued) and by the Yankee Atomic project (contract executed with AEC); the boiling water-type reactor has been committed for by Commonwealth Edison and the Nuclear Power Group (construction permit issued and construction started); the sodium graphite-type reactor is the subject of negotiations between Consumers Public Power District and the AEC; the fast-breeder-type reactor is being developed by the Power Reactor Development Company (contract executed with AEC, conditional construction permit issued and construction under way). Hearings before the Joint Committee on Atomic Energy—Development, Growth, and State of the Atomic Energy Industry, 85th Congress, 1st Session, 133 (1957). As for the homogenous-type reactor, the AEC recently modified its prior announcement that this type should be built in large size by 1962 and extended this target date by at least one year on the ground that large-scale construction was not presently justified in the light of existing technological information. AEC No. 1077, June 10, 1957; CCH Atomic Energy L. Rep. 6996. In addition to the AEC project at Oak Ridge, the homogenous-type reactor has been the subject of a major research program by Westinghouse and Pennsylvania Power & Light Company since July, 1955.

The natural uranium-fueled heavy water-moderated reactor has been designated as meriting large-scale construction in the AEC's announcement in January, 1957, of the Third Round Power Demonstration Reactor Program. This reactor type is the subject of a proposal by the Florida Nuclear Power Group. CCH Atomic Energy L. Rep. 6834, Hearings before Subcommittee on Legislation of the Joint Committee on Atomic Energy, 85th Congress, 1st Session, June 24, 1957.

[20] Hearings before the Joint Committee on Atomic Energy—Development, Growth, and State of the Atomic Energy Industry, 85th Congress, 1st Session 15, 133 (1957). This amount includes substantial federal funds for research and for capital investment as in the case of Shippingport and other projects where the reactor will be owned by AEC. However, industry programs account for the major proportion of expenditure and kilowatts of capacity.

[21] The Commonwealth Edison and Consolidated Edison projects are being constructed independently of any federal assistance under the Power Demonstration Reactor Program.

[22] AEC Release No. 953, January 7, 1957, CCH Atomic Energy L. Rep. 6834. Under the law, all nuclear material is at all times owned by the government and while this is not true for heavy water, this is not yet commercially available and must likewise be obtained from the AEC.

[23] AEC Program Justification Data for Co-operative Arrangements furnished to Joint Committee on Atomic Energy, 5, June 12, 1957.

[24] 22 FR 1591. This determination seems clearly to have been directed to the problem of reprocessing of solid fuel elements. No comparable policy has been announced which specifically applies to fluid fuel reactors.

[25] Comptroller General's Report on Review of AEC Contract with Yankee Atomic Electric Co. November, 1956, CCH Atomic Energy L. Rep. 6884; 103 *Congressional Record* 5188 (daily ed. April 16, 1957).

[26] Opinion of the Comptroller General of the United States, No. B-130815, April 2, 1957, CCH Atomic Energy L. Rep. 6950.

[27] S 2243.

[28] S. Rep. No. 437, Joint Committee on Atomic Energy, Congressional Review of Atomic Power Program, 85th Congress, 1st Session, 7, June 14, 1957.

[29] A Study of AEC Procedures and Organization in the Licensing of Reactor Facilities, Joint Committee on Atomic Energy, 85th Congress, 1st Session.

[30] Under clarifying amendments adopted by the House in passing the Indemnity Bill on July 1, 1957, it is now clear that the government indemnity takes over at the point that the aggregate of claims *and expenses* reach the limit of financial protection which licensees are required to provide either through insurance or other proof of financial responsibility. Also, for licensees of large power reactors (100,000-kilowatt electrical capacity or more) the indemnity will apply only in excess of the maximum amount of liability insurance available from private sources. For a smaller reactor AEC would have authority to set the requirement of private financial protection (and therefore the point at which the government indemnity begins) at a lesser amount.

[31] Guss *v.* Utah Labor Relations Board (1957) 77 S Ct 598.

[32] In United Automobile A. & A.I.W. *v.* Wisconsin Employment Relations Board (1956) 351 US 266, 274, 76 S Ct 794, 799, the court said the general rule that a state may not enjoin that which has been made an unfair labor practice under the federal law "does not take from the states power to prevent mass picketing, violence, and overt threats of violence. The dominant interest of the state in preventing violence and property damage cannot be questioned. It is a matter of genuine local concern." Numerous other cases to the same effect are cited.

[33] At least 27 states (Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Kansas, Kentucky, Louisiana, Massachusetts, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, West Virginia, Wisconsin, and Wyoming) have by means of statute or regulation taken action to regulate certain aspects of atomic energy. Fifteen states (Arkansas, California, Colorado, Connecticut, Kentucky, New Jersey, New York, Ohio Oregon, Pennsylvania, South Dakota, Texas, Utah, West Virginia, and Wisconsin) have provided for fixing maximum radiation exposure limits. In most cases, the regulations reflect in substance the recommendations of the National Committee on Radiation Protection sponsored by the National Bureau of Standards. Thus a reasonable degree of uniformity of standards now exists. Six other states (Connecticut, Delaware, New York, North Dakota, South Dakota, and Wyoming) require that radiation sources be registered with the appropriate state agency. In North Dakota, since July 1, 1957, all producers and users of radiation and radiation materials are required to register with the state department of health which will, following determination as to whether the health of the public may be adversely affected, issue a certificate of registration. Three states (Arkansas, Kentucky, and New York) require pre-employment physical examinations for those to be employed in connection with sources of radiation, and three states (California, Massachusetts, and New York) have specifically dealt with the disposal of radioactive wastes. Regulation 9 of Chapter XVI of The Sanitary Code of the New York State Department of Health, issued under The Public Health Law, provides that "Radioactive wastes shall not be disposed of by dumping on the surface of the ground or by burial in the soil except in areas specifically approved by the state commissioner of health."

In addition, Detroit, Philadelphia, New York city, and several hundred municipalities in New York state, as well as two counties in Georgia, have enacted ordinances or regulations relating to atomic energy. The New York municipal regulations adopt the State Building Construction Code which provides that, where a reactor or other equipment or material producing radiation is to be installed, adequate shielding or other means shall be provided in conformity with the generally accepted standards so as not to create a health or physical hazard. It, therefore, does not appear likely that such regulations would result in any conflict with state or federal regulation.

[34] In general there are three categories of state agencies which may possess authority to regulate various health and safety aspects of a power reactor under statutory powers conferred upon them prior to or since the advent of atomic energy. These are the public utility commission, the state labor department or industrial board, and state and local health agencies. The laws of the states vary but in many, if not most states, there are at least several different agencies having sufficient power under the state law to regulate various aspects of the health and safety problem in connection with a reactor.

Often the authority to regulate water and air pollution has been conferred on an administrative agency, such as a water or air pollution board or commission, separate from the agency which regulates general health and safety. In addition, there are some interstate agencies arising from interstate compacts that can be expected to regulate water and air pollution. An example is the New England Interstate Water Pollution Control Commission, and there are other similar interstate agencies.

Other areas in which state agencies have power to regulate matters, which may involve power reactors, are building codes, fire hazards, elevators, boilers, and transportation of dangerous materials. Special permission must be secured from the Pennsylvania Turnpike Commission before radioactive materials can be hauled over the Pennsylvania turnpikes. The Port of New York Authority has similar requirements in connection with the use of tunnels under its jurisdiction. Agencies of local governments, cities, towns, counties, and townships have many of the same regulatory powers that state agencies have in this field, plus an additional power, zoning, which may affect power reactors.

In addition, there is the whole area of workmen's compensation and occupational disease laws and the many related questions such as the statutes of limitations, joint employer liability, proof of injury, and allowable medical expenses. See report for the year 1956-57 of the Special Committee on Atomic Energy Law of the American Bar Association. Radiation coverage is now provided for in at least 12 states (Arkansas, Colorado, Georgia, Idaho, Kansas, Louisiana, New Mexico, New York, Oklahoma, Pennsylvania, Rhode Island, and Texas).

[35] Address by Senator Anderson, meeting of the

Council of State Governments, May 10, 1957; address by Harold L. Price, director, division of civilian application, AEC, Conference of Utility Commission Engineers, May 15, 1957; hearings before the Joint Committee on Atomic Energy—Development, Growth, and State of the Atomic Energy Industry, 85th Congress, 1st Session 697-705 (1957); only one bill on this subject has been introduced in the present session of Congress—S 53 (Senator Anderson) which would authorize AEC to negotiate state compacts under which the AEC could delegate responsibility for regulating health and safety aspects of atomic energy to a state after AEC had found the state competent to assume such responsibility.

[36] The executive committee of the National Association of Railroad and Utilities Commissioners by resolution dated February 28, 1957, endorsed the establishment of a state co-ordinating agency in the atomic energy field and the model state act drafted by the Council of State Governments provides for a similar agency. So far nine states (Arkansas, Connecticut, Maine, Massachusetts, New Hampshire, Ohio, Rhode Island, Tennessee, and Washington) have set up such an agency.

[37] *The New York Times*, May 8, 1957, p. 14.

[38] Address by Paul F. Foster, assistant general manager for International Activities, AEC, to All Congress banquet of the 1957 Nuclear Congress, Philadelphia, Pennsylvania, March 13, 1957.

[39] Including boiling water, fast-breeder, gas-cooled, homogeneous, liquid metal, molten plutonium, organic moderated, pressurized water, sodium graphite, and sodium heavy water. Many of these types are being developed in several variations.

[40] Hearings before the Joint Committee on Atomic Energy—Development, Growth, and State of the Atomic Energy Industry, 85th Congress, 1st Session, 15 (1957).

[41] Despite the considerable clamor about foreign trade opportunities for an American atomic industry, thoughtful observers are not optimistic. Discounting prospects of a profitable foreign trade in atomic equipment, they point to such facts as these: (a) American power equipment manufacturers have never been successful in securing volume sales abroad despite their acknowledged position of technological pre-eminence; (b) for foreign nations considerations of self-sufficiency and prestige will point to local manufacture; and (c) dollar shortages will be a severe limit on imports from the United States. This is a particularly relevant factor, bearing in mind that the European program of atomic development is largely dictated by the need for avoiding the costs associated with importing coal and oil.

Current Problems in Civil Aviation

By JAMES R. DURFEE*

Your invitation to a spokesman for air transportation strikes me as being especially appropriate this year in view of the fact that the convention itself promises to be air-borne, at least in part, with sessions scheduled both here in New York and 3,500 miles away in London.

I personally welcomed the invitation as an opportunity to continue participation in your activities which previously held my interest in my years as chairman of the Wisconsin Public Service Commission. My interest in your present program of activities has not changed, even though my own activities have changed within the past year from state regulation of utilities and transportation to federal regulation of civil aviation.

It was difficult to find among the many subjects that have held my own interest in the past year the ones of greatest general interest to you. Out of appreciation for its dramatic potential to all of us, I have taken a suggestion of H. Templeton Brown, one of our CAB practitioners who has the distinction of being a member of the council.

That suggestion was that I speak of the advent of the jet age in commercial air transportation. In less than two years we anticipate that the jet age will be a commercial reality, as it is already a military reality. It is a fascinating prospect to picture daily transcontinental flights from New York to Los Angeles in five hours' time—compared with today's fastest time of approximately eight and one-half hours.

In a few days some of you may be flying from New York to London, a flight of eleven hours or more. Within two or three years, jet airliners will probably span the Atlantic in about six hours.

This amazing prospect will have its problems, just as any great technological change creates new problems. With the tremendous jump in speed will come tremendous increases in investment necessary to finance the purchase of these new aircraft. Today we estimate that there are almost 400 jet aircraft on order that will cost between $2.5 and $3 billion.

New aircraft on order—both jets and turbo-prop, together with spare parts—are expected to cost the domestic trunk lines

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alone over $1.3 billion as compared with their total present net worth of approximately a half-billion.

Passenger capacity will rise, not only by virtue of the size and number of the planes, but by virtue of their greater speed, which will increase available seats in proportion to the increase in speed.

I am sure I need go no further in sketching the potential problems in order for you to realize that the jet age may well create economic problems that could threaten the orderly development of the American air transportation system. There is no Pollyanna attitude toward the future in an industry that has hardly had time to forget the dark economic days of a decade ago—days when postwar equipment of greater capacity and speed was being introduced.

OTHER utility industries have, and will in the future face, technological changes of the same fundamental importance. The advent of television and radio revolutionized the communications industry. The development of atomic energy for commercial power purposes promises to revolutionize the power industry.

These rapid technological changes pose acute problems, both in terms of the health of the industries involved and their ability to serve the public—problems that challenge the regulatory agencies which bear the responsibility to assure that technological change accrues to the public as well as private interest. Rapid technological change strains the regulatory process at the very points at which it tends to be weakest.

The classic problem of "regulatory lag" becomes a luxury, in times of rapid and radical change, that the public interest simply cannot afford. Nevertheless, this is all too frequently the involuntary regulatory response to times of crisis.

Planning becomes the byword of the times. But, at the same time, the burden of day-to-day activities involving novel problems so tends to increase as to prevent full attention to planning. Accurate information about the state of the industry and the economy is essential—but the technological changes by their very nature make analysis of information more difficult until new norms are established. Adequate staffing and competent personnel are essential.

YOU will have noticed that I have emphasized administrative and organizational problems. Obviously, the problems of substance will be important.

Just for example:

The rôle of competition in the industry will be subject to constant question as new types of equipment affect the flow of traffic and generate new traffic.

The level of fares and the fare structure will be a prime point of interest as traffic increases and the investment necessary to serve that traffic increases.

The relationship between the jet-equipped trunk-line carriers and the local service carriers will need re-examination.

The reason I do not place greater emphasis on the substantive problems is that I am confident that they are susceptible to solution granted the necessary tools, organization, and procedures.

The stage will, I think, be well set when the jets arrive on the scene. The board has virtually completed a re-examination of the country's major trunk-line route needs—a re-examination that has led to widespread improvements which should assure, as we enter the jet age, that adequate services will be available to the traveler and shipper and, at the same time, that an adequate opportunity is provided for the carriers to compete on more equal terms.

The board now has under way an investigation of proposals for immediate fare increases. An even more comprehensive investigation of the over-all fare level is in process. These two proceedings should establish the basic rate concepts that will prevail during the introduction of jet aircraft.

CONGRESS has backed the board in its efforts to meet these problems by providing increased funds for badly needed staff. With that backing the board can begin to program its jet-age projects during the next year at an expanding rate.

The only area that causes me deep concern in looking into this future is that of recruiting personnel, an increasingly difficult task in government. The problem of government legal services has been attacked by the bar and we may expect helpful legislation in the not too distant future.

The problem of recruiting other profes-

sional people may also, I am afraid, have to become the concern of the bar. It is axiomatic that our government can be no better than the personnel who staff it—and no profession has a more direct interest in seeing it well staffed than does the legal profession.

Now, to avoid undue emphasis on the problems of the jet age, let me discuss another important area of our work—international air transportation. This field is important not only to us, but to all of you as well, not just as citizens, and not just as air travelers, but as lawyers who will inevitably play an increasing rôle in the expansion of American interest and commerce abroad.

The inherent advantages of air transportation are highlighted in international commerce. No other medium has contributed so much to bringing the peoples of the world closer together. Jet commerce will shrink these dividing distances still more. No other field of commerce (and I might say, in passing, virtually no other field of law) holds more promise for the future than international air commerce.

INTERNATIONAL air transportation has developed in an entirely unique fashion, compared with ocean transportation or our domestic transportation utilities. There has never been, in international air transportation, a tradition comparable to freedom of the seas. There has never been a period of unregulated, *laissez-faire* growth that has been known to domestic transportation media.

On the contrary, international air transportation has been closely controlled from its very inception. The character of the regulation is, of course, entirely different from domestic utility regulation due to the participation in it of some 47 different sovereign authorities with as many different, if not conflicting, transportation policies.

No problem has been more difficult than that of devising satisfactory methods for formulating and executing American international aviation policy. There has long been great controversy over which agency shall have the responsibility for that policy—a responsibility which now lies in large part on the President, in part on the State Department, and in part on the CAB.

In the past year there has been significant progress in defining the respective rôles of the State Department and the CAB in one area—that of negotiating international agreements governing air traffic rights. The CAB has assumed primary responsibility for evaluating the purely aviation aspects of the U. S. position, and the State Department the responsibility for assessing the nonaviation elements and formulating the final U. S. position.

IN another controversial area—the question of the industry's right to participate in the negotiation of air agreements—there has also been substantial progress, though without any final resolution.

To the industry the right to participate in all phases—from preparatory analysis to signing of agreements—is simply an aspect of the right to notice and hearing. To those of us in government, the problem is considerably more complex.

We not only accept, but find indispensable, the close co-operation of the industry. But industry interests are not necessarily identical with the interests of the country as a whole even when industry is able to present a unified position. This unity among our international airlines, I might add, is not always present.

The simplest illustration of the problem is the instance in which an American community may seek the services of a foreign carrier which the American carriers may oppose.

At present I think it is correct to say that the industry's right to consultation—to be advised of and offer comments on U. S. positions—is clearly established. The scope of additional participation is a matter that will have to be worked out on a case-to-case basis in light of the manifold American interests that may be involved in each instance.

ANOTHER critical problem today is the regulation of international fares. The board has no direct authority over the reasonableness of international fares—nor is there any plenary governmental authority over them.

The vacuum has been filled by industry agreements achieved through a nongovernmental authority—an industry association known as IATA, the International Air Transport Association.

The board does have direct responsibility for the approval of rate agreements—a con-

ventional type "public interest" responsibility found in many regulatory statutes—to assure that the public is protected against unreasonable exactions that may result when price competition is eliminated.

The difficulty is that the "public interest" involves factors unknown to purely domestic regulation—for example, the preservation of the reciprocal structure that makes international air transportation feasible.

The board has recently been subjected to severe domestic and foreign criticism for its evaluation of the public interest in its disapproval of an agreement calling for a 5 per cent increase in North Atlantic fares. The increase had the approval of all other interested governments.

The case illustrates the difficulties of assessing the "public interest" in this complex arena. The evidence the board had available to it—namely, the experience of the American North Atlantic carriers—showed cost increases. The data also showed, however, that as a result of traffic gains unit costs had not increased materially with the absolute increase in costs. An opportunity was provided for the submission of additional data. Nothing significant was supplied from any quarter, foreign or domestic, and the board was obliged to disapprove the agreement on the evidence before it.

We appreciate the impact that this decision had on foreign carriers and governments. To us it is fundamental, however, that so substantial an increase in such an important American travel market must be supported by evidence. The people of this country have a right—which the board is duty bound to protect—to some real justification for such action. To us this right to information is the cornerstone of the public interest, even in the complex arena of international relations.

This tremendous expansion of domestic and international air commerce has occurred largely within the past ten years, but the genesis of aviation began with the return of the gallant young fighter pilots of World War I. They brought back victory in the sky, but more important they brought back the vision and daring that first started our country toward world leadership in the air. There were but few others who shared that vision of the flyer forty years ago. One of the few was Justice Cardozo who back in 1926, in the case of Hesse *v.* Rath (1928) 249 NY 436, wrote these words:

> Aviation is today an established method of transportation. The future, even the near future, will make it still more general. The city that is without the foresight to build the ports for the new traffic may soon be left behind in the race of competition. Chalcedon was called the city of the blind, because its founders rejected the nobler site of Byzantium lying at their feet. The need for vision of the future in the governance of cities has not lessened with the years. The dweller within the gates, even more than the stranger from afar, will pay the price of blindness.

To paraphrase his words, the need for vision in the governance of aviation has not lessened with the years. Let us hope that we of the legal profession, who dwell within the gates of our government, will have the vision and the foresight to meet the new airborne challenge to earth-bound legal concepts.

Some Current Regulatory Problems before the Federal Power Commission

By WILLIAM R. CONNOLE*

A meeting of lawyers who devote a substantial part of their working lives to problems of public utility regulation is hardly the place to review a tiresome recitation of court and commission decisions. Moreover, your capable Standing Committee has disposed of the important opinions and orders handed down recently in the report which is available to you. Accordingly, my treatment of current regulatory problems will be confined to some of the more important matters now before the commission. I do not presume to suggest to this distinguished audience solutions of these problems. I prefer, rather to talk *with* you about them, not *to* you or *at* you, injecting my personal views only when they are interesting to per-

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sons other than myself. A personal reaction sometimes provokes thought and stimulates discussion more effectively than a dull, factual recitation of the position of a commission or a court.

I shall restrict my remarks mainly to three matters among the many which have given the Federal Power Commission special cause for concern this past year:

(1) How to find standards of justness and reasonableness in pricing natural gas sold by producers to interstate pipelines; a problem that remains, to say the least, perplexing.

(2) How to treat liberalized depreciation in rate-making proceedings; a problem that grows in difficulty.

(3) Whether to permit prohibitions or restrictions on callability in new security issues; a problem that has been aggravated by advances in the cost of borrowed funds.

THE temptation to discuss "The Bill" is hard to resist, of course. But the subject was so capably handled in the session yesterday that I shall discreetly avoid comment on the substantive merits or demerits of the proposal. In fact, my position in the matter is of public record, appearing in Volume II, page 1583 *et seq.*, of the hearings before the House committee. It will suffice to quote from that source the following to round out discussion of pricing independent producers' natural gas sales:

> Working with the Natural Gas Act against a background of personal regulatory experience on the state and federal level covering practically every known type of regulated utility enterprise, I have become convinced that regulation of independent producers to the extent now contemplated by law would be more effective both substantively and procedurally if certain amendments were made to the act. Existing legislation is cumbersome and unwieldy. It works a special disadvantage and hardship on small independent producers who are least qualified to respond to regulation's requirements and whose rates make the smallest impact on the interstate natural gas rate structure.
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> I considered the proposed legislation with a view to whether these defects were remedied. I sought to satisfy myself that the changes which would be made in the act were improvements in regulating the independent producer within expressed congressional policy and not simply the substitution of one set of ineffective standards for another. From this study I concluded that the proposed legislation was attempting to remedy these ills. For this reason, I agree with what it sets out to do. Unfortunately, however, I also concluded that the manner in which it did so would not make regulation of the independent producer, to the extent the Congress apparently feels it is necessary, any more satisfactory. . . .

WHETHER or not the proposed legislation is enacted, one thing is clear. For some time to come independent producers will be subject to regulation in the public interest to a degree that the entire producing segment of the industry would have thought impossible a few years ago. Particularly, this regulation will affect gas producers' selling prices. The uncertain state of the statutory law affecting this important question renders inappropriate a discussion of the several regulatory standards which might be applied to rates. Nor is the standard suggested in the bill that is now under most active consideration completely clear.

One thing stands out, however, whether we propose to operate under the act in its present form or as it may be amended. The fundamentals of fixing reasonable independent producer prices differ little, if any, from those employed in other pricing problems. Only their application differs. I believe that two of these "first principles" need discussion in particular. These are:

1. There is no distinction for purposes of economic analysis between a service and a commodity.
2. We had best start with a determination of the costs incurred in production.

Turning first to the need to consider the incurred costs of natural gas production we meet at once the contention that regulation of the rates for an independent producer's gas should be based on its value to the *exclusion* of its cost.

Let me make one point unmistakably clear in this address: No meaningful or

legally sufficient regulation of independent natural gas producers can develop on the basis of *value* to the exclusion of *costs* of production and service. I am sure we both have noted that industry spokesmen readily recognize this basic fact whenever its importance suggests itself to them. May I quote, for example, the language of the *Oil & Gas Journal*, of July 1, 1957, commenting editorially on the recent action of the Federal Power Commission in the well-known CATCO matter (Re Continental Oil Co. et al. G-11024 et al.):

> The FPC's new attitude toward gas prices will set a bench mark. It now has recognized two facts: Big gas reserves are worth more per cubic foot than smaller ones. *Producing costs must be considered in setting the price of gas.* (Emphasis added.)

I am sufficiently conscious of the astuteness of my audience not to suggest explicitly how gas production costs will be determined or precisely which costs will be used in the process. The FPC staff is diligently working at this problem. I know, however, this much: The first steps are being made. Whatever form the ultimate determination takes, costs of finding, of producing, and of reducing natural gas to possession must be given due recognition in its pricing.

I SHOULD be less than candid not to repeat a comment I have made elsewhere concerning criticism of the Federal Power Commission's failure to prescribe in detail the costs producers of natural gas may employ in a proper and adequate showing of reasonableness before the Federal Power Commission. Producers, rather than the commission, know what information will best make their cases. We of the commission are without authority, and therefore lack responsibility to make producers' cases for them. They, as well as we, can read the statute and its interpretations. Indeed, were we to advance a blanket suggestion of this kind, those first to complain, and properly so, would be found in some segment of the producing industry. Of course, no standard rule would fit all cases equally well. I think our present plan of proceeding cautiously, case by case, will serve everyone's advantage if we can agree respecting what we are seeking: *meaningful cost data*, as a starting point for reasonable rates.

When I encounter the rather doctrinaire objections to the employment of costs as a measure of reasonableness, I am reminded of a characteristic observation on Christianity by the great English philosopher and poet, G. K. Chesterton. Speaking of the tendency to condemn Christianity as unsuccessful, he said, "It is not that Christianity has been tried and found wanting; it has been found difficult and not tried."

SIMILARLY, regulation of the independent producers using some basic cost data has not been tried and found wanting; it has been found difficult and not tried.

This is enough to indicate the regulatory importance of those polar opposites of pricing: cost and value. The former may be said to reflect supply conditions; the latter, those of demand for the product. I turn now to another fundamental consideration, the alleged distinction for purposes of economic analysis between a commodity and a service.

I should like to dispel first the bugaboo of "commodity" value as it relates to independent producer pricing. No economist worth his weight in demand schedules would deny that the disciplines used in analyzing a pricing problem are necessarily abstract. If at all meaningful, those disciplines and concepts apply equally well whatever the *form* of the thing priced. Consequently, the natural gas industry may hardly be distinguished from other regulated industries on the basis that natural gas is a commodity while the products of the latter are services.

NO one contends that the manufacture and distribution of gas or steam are the production of a "commodity" and hence not properly the subject of regulation in the public interest. Indeed, but for the fact that supply is periodically replenished, searching and drilling for ground water, its storage, transmission, and distribution by a water utility involves many characteristics that justify classing the ground water utility business as one dealing with a commodity. Yet historically, and without need for recourse to the argument of a need for a "commodity value," these industries have been the subject of regulation. In any regulatory process, whether or not the meaningless euphemism "commodity" is placed before "value,"

value exists and may be measured. Such "value," however, is but one of two sides of the coin. It has significance only as it affects the problem of pricing a product or a service *after* the costs of the product or service are known; example perhaps of the familiar distinction between costing and pricing. To exclude either costing or pricing, costs or value, would leave out of consideration half of the problem.

I SHOULD like to mention one more matter of practical concern to the industry and to practitioners: disposition of rate filings before the Federal Power Commission. This problem has kept both bench and bar of the commission busy ever since Phillips was decided.[1] I have given considerable thought to a measure that would meet constitutional and statutory standards and at the same time, result in practical handling of the many individual filings.

In working on this problem, I have been reminded frequently of the not dissimilar task facing a brother regulatory commission, the Interstate Commerce Commission. That agency must wrestle with the tariffs of individual motor carriers, for example, operating between points of high traffic density and intense competition. Their financial and operating characteristics differ, often in substantial degree. Yet, despite their differences, similarity of service provides a means of uniform rate making. Granted, theirs is quite as much a problem of fixing minimum as well as maximum rates. Nevertheless, there is much to learn here. It is positive proof that voluminous rate filings by parties with differing revenue requirements do not, *ipso facto,* render regulation impossible. Indeed, the use of carrier operating costs has become commonplace in the analyses of the Interstate Commerce Commission.

I do not venture to propose what grouping of rate schedules or producers will produce the regulatory answer in the independent natural gas producer pricing problem. Whether common buyer, common seller, common producing conditions, common revenue requirements, or some other common factor will become the denominator remains for resolution. When we arrive at an administratively workable and judicially approved method, however, a particularly valuable and practical contribution to the art and science of natural gas rate determination will have been made.

FINALLY, let me suggest the significance of this subject of natural gas rate regulation as a feature of our national energy picture. It is one that fails to receive the recognition its importance deserves.

Regulation should recognize our energy resources, including natural gas, comprise the most important resources we have. Utilization as fuels of our expendable, irreplaceable fossil hydrocarbons is a problem for regulators and regulated alike. Many abuses of this priceless resource are practiced in the name of false economy. To mention but one: Dump, off-peak sales of natural gas made *below cost,* to breathe artificial vitality into an otherwise economically unsound pipeline, are becoming ever more commonplace, utilizing the form and thus perverting the original purpose of the demand-commodity type of rate. This procedure has pernicious effects. As with other forms of addiction the habitué sees advantage in the evils of the practice. The tendency to underprice dump sales in order to achieve chimeric load factor gains may, without overemphasis, be considered the opiate of the pipeline industry. The time approaches rapidly when rising producer prices will eliminate the effectiveness of this off-peak service in competition with alternative fuels. When that day dawns, those whose economic life depends on these uneconomic increments of enterprise may view with dismay the havoc disclosed.

LET us now examine the second of the three issues proposed for this discussion; namely, liberalized depreciation and especially its effect on rate-making proceedings. Once again I propose no definitive solutions, but intend merely to canvass some of the implications.

Of course, the commission has not expressed itself officially on this matter, and several cases involving it are currently before the commission. To avoid misunderstanding, the problem involves the operation of § 167 of the Internal Revenue Code. The term "liberalized depreciation" must be distinguished from "accelerated amortization,"

[1] Phillips Petroleum Co. *v.* Wisconsin (1954) 347 US 672, 3 PUR3d 129.

provided for by § 168 of the code. The problem is whether or not a regulated enterprise, in taking advantage of one of the alternative methods of depreciation calculation now permitted by § 167, may continue to charge, as taxes paid, an amount representing federal income tax liability which is not actually paid, but which would be paid were the company employing a straight-line depreciation calculation.

The issue becomes increasingly important as the amounts credited to the consequent reserve become larger and as so-called "deferred taxes" become an increasingly larger proportion of operating revenue deductions.

THE Federal Power Commission has expressed itself regarding the accounting treatment of such "deferred taxes." However, the real question still remains: whether or not the deferred taxes will be permitted as charges against customers.

Is it not significant that every regulatory commission which has reached the problem has held that the customers should not be charged this amount? The states of Maine, New Hampshire, New Mexico, and Pennsylvania, and possibly others by now, have denied to companies the privilege of "normalizing" federal income taxes when calculating depreciation by "accelerated" methods.

Since I wish to stimulate discussion and my position is of public record, I do not hesitate to direct your attention to the separate statement which I filed in the Federal Power Commission proceeding involving the accounting treatment of this matter, in Amere Gas Utilities Co. et al. (G-6358) 15 PUR3d 339. I said:

> I dissent from the majority opinion because it will have the effect of authorizing a permanent reserve created out of excessive charges to operating revenue deductions for federal income tax payments contrary to the intent of the Congress, contrary to established regulatory law, and unjustified by the regulated utility concept.
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> Section 167 deals solely with depreciation and is designed to equate depreciation practices of industry generally with the use characteristics of depreciable property resulting in reductions in federal income tax liability. I have neither the inclination nor the jurisdiction to deny to utility companies this privilege. Reductions in income tax liability, however, whether resulting from statutory changes in rates or in allowances for deductions (as here) or any other method, are sufficient advantages unto themselves. We have no congressional mandate to compound that advantage by permitting enterprises subject to our jurisdiction to charge ratepayers rates designed to recover an amount greater than the resultant reduced tax liability and to credit it to a permanent reserve.

ON a petition for rehearing, the commission, stating that the majority view was confined solely to accounting methods, indicated that this position would be "effectuated" in appropriate rate proceedings. Presently, the form of and occasion for the effectuation have not developed.

An ancillary question arises after the decision by a regulatory commission not to permit these charges to be borne by the ratepayer. It is whether there is an obligation on the utility to take advantage of liberalized depreciation regardless whether ratepayer or shareholder benefits. It is exemplified in recent proceedings before the Pennsylvania commission, wherein another subsidiary of the Columbia system, Manufacturers Light, Heat & Power, was respondent in a rate case. Following an unsuccessful effort to pass along so-called "deferred taxes" to its ratepayers, the company appealed to the superior court of Pennsylvania. The latter held, as your Standing Committee reports, that the utility was not required to adopt liberalized depreciation and that where it had not done so its taxes for rate purposes would be computed using the regular depreciation method actually employed by the company.

SOME have taken the position that the utility company bears an obligation *as a matter of rate making* to utilize liberalized depreciation regardless of possible benefit accruing to the stockholders. Those who argue the contrary position gain support from the Pennsylvania case to which I have referred. Note, however, that the Pennsylvania case states that only *as a matter of income tax accounting* it is not necessary to adopt one, or any, of the alternative methods of depreciation that are available under § 167. It does

not state that it is of no moment for *rate making* whether or not any of them is adopted.

A question is at least raised here. If an operating economy is available to a utility enterprise and the latter elects not to utilize it, but rather to spend more dollars "unnecessarily," can these extra dollars be considered reasonable operating revenue deductions? I think this will be a live issue in some of the proceedings before federal and state regulatory bodies this year.

FINALLY, a word on the third subject: this business of restrictions or prohibitions on calling and refunding provisions in new debt issues.

In the current period of worsening bond prices and increasing interest rates, lending institutions quite understandably seek to make certain that the attractive rates being paid by high-grade risks will continue. When a successful operating electric utility or pipeline company must pay up to 6¼ per cent interest for first mortgage money, and when an AAA telephone utility pays nearly 4 per cent on a debenture issue, the pressure of the lending institutions on the utilities is indeed great. The specter of refunding at the 2.5 per cent interest rate that prevailed shortly after World War II darkens the desk of many an investment portfolio manager. The attitude is not without reason. When return on investments is an enterprise's largest source of income, it does not seem out of place to ask a reasonable expectation of what the yield on those investments will be.

But we who must weigh the relative claims of investor, owner, and consumer have to determine how best to protect the public interest that the over-all cost of utility service will be low yet consistent with good service and with the financial integrity of the utility enterprise, bearing in mind the benefit of those who use, as well as those who provide, the utility service.

The difficulty is this: Despite efforts by the Securities and Exchange Commission, the Federal Power Commission, the insurance industry, and others, no clinical demonstration has yet been made to show just how many basis points a restriction on call is worth.

Now I appreciate that many of the practical financial men who look at this problem contend that a company simply cannot sell its securities in today's market without a restriction on their callability. This I am inclined to doubt. There is *some* market for all securities, no matter how poor the risk. The question is whether or not a utility company in today's market is justified in obligating itself to a long-term debt at high interest rates when, by a callability provision it may assure greater flexibility should interest rates drop. The answer lies in determining the cost of that privilege and how likely it is that its exercise will become worth while to the company.

To date most regulatory bodies facing this problem, including Federal Power Commission, Securities and Exchange Commission, and most state agencies, have refused consistently to permit restrictions or prohibitions on refunding. It is entirely possible, however, that certain circumstances may occur in which a utility might justly depart from this position. For example, a restriction on call is said to be of very real and measurable value to some lenders, little to others. If this be true, perhaps a basis for regulating decision is the type of lender involved. The matter might best be tested by application to a negotiated issue. If applicants for such authority would demonstrate to the commission their success in negotiating with and without call restrictions or prohibitions, some basis for regulatory decision would appear.

ANOTHER suggestion, that of alternative bids in the case of competitive offerings, has merit, though to my knowledge no one has been successful in attracting such alternative bids. Some lenders and bidders maintain, however, that it is impossible to submit such offers. Nevertheless, further attention might be given to this possibility by both utilities and commissions.

Moreover, it has occurred to me that from the lender's side the value of a restriction on refundability increases as interest rates rise; that is, as improvement in the bond market becomes more likely to occur. For the privilege of refunding is meaningless until interest rates are materially lower than they were when the issue was marketed. Accordingly, the lender becomes increasingly apprehensive lest conditions improve. While the poor market cycle continues, financiers are inclined to make more generous concessions

in the initial rate in order to assure themselves satisfactory interest rates throughout the life of the several issues.

During such times utility companies and other borrowers seem in a stronger position to bargain for materially lower interest rates as consideration for nonrefundable clauses than during the early part of a high interest rate cycle. Though not adequately demonstrated by experience, if there is substance to this theory, the resultant average interest cost may compare favorably during a poor money market cycle whether or not the indenture contains a restriction on refundability.

In summation, until the value of a restriction on call is obtained by satisfactory clinical demonstration and until the trend of the bond market in the near future becomes apparent, the question remains open.

While these are by no means the only problems before the commission, I consider them particularly interesting to lawyers practicing before federal and state agencies. I welcome inquiries or suggestions that may occur to you from this talk.

In conclusion may I repeat, the Standing Committee is to be congratulated on presenting a balanced program for the information of the entire public utility bar. It is extremely significant that, to an increasing degree, regulator and regulated alike find it possible to sit down in discussions such as this to talk over problems of mutual interest and perhaps to reach tentative conclusions respecting them. That the ultimate court, the court of public opinion, approves this conduct is a tribute to the public utility bench and bar. The pragmatic question whether such exchanges work to the advantage of the public interest has been answered conclusively in the affirmative. It is with special pleasure, therefore, that I have developed these ideas for you and anticipate your comments.

Current Developments in Surface Transportation

By OWEN CLARKE*

When you invited me to participate in today's program and to discuss transportation problems in general, and Interstate Commerce Commission problems in particular, I must confess that I was rather pleased. After all, every lawyer likes to talk about his own work, especially to other members of the bar. And, let me hasten to add, I am no exception.

Transportation is a big industry—far bigger than is generally realized and far more important from the public standpoint than many concerned with public law appreciate. While it is practically impossible to measure in any conventional way the true economic significance of this great industry, the degree of our dependence upon it is demonstrated by the extraordinary development and use of transport facilities in the United States. In no other nation does the quantity or quality of transportation service even remotely approximate the levels reached here.

Passengers may travel on the highway by bus or by automobile, and in most communities of any size they are offered the additional choice of rail or air service. Similarly, the movement of freight is possible on the highway by private, contract, or common carrier truck, as well as by rail or water. Recently air cargo has introduced a new and rapidly expanding service, and, for special purposes, the pipeline network offers cheap and efficient transport.

The result of this volume and variety of services has been an abundance of freight and passenger transportation at rates which have encouraged widespread use of all forms of transport and a high degree of dependence on them. This in turn has contributed in no small degree to the enrichment of our social life and the efficiency of our economic processes.

The various types of carriers which comprise our transportation system are, to all intents and purposes, public utilities. As such, they are in most cases subject to government regulation. The reasons why regulation of this industry is necessary differ considerably from the reasons why our electric power or telephone companies, for example, are regulated. In the one case, control is necessary

*Chairman, Interstate Commerce Commission, Washington, D. C.

to guard against monopolistic abuse, whereas with transportation, the objective is to guard against the dangers inherent in destructive and wasteful competition. But, the end result is about the same. What we are after in each instance is the preservation of essential public services performed efficiently at reasonable charges.

THE very keystone of the federal government's regulatory program in transportation is the maintenance of fair competition. Accordingly, the regulatory statutes not only carry prohibitions against discriminatory rates and service, but explicitly reject monopolistic organization of transportation by declaring that the "inherent advantages" of each mode of transport shall be preserved.

In exercising affirmative control over rates, route patterns, and the corporate structure of the industry, the underlying theory of our national regulatory theme is to preserve workable competition. The end purpose is to afford each transport medium an opportunity to find its area of usefulness on the basis of relative efficiency and quality of service. If we, as regulators, perform our task properly, free customer choice, guided by rate and service competition, then allocates the available traffic equitably and economically among the several forms of transportation and their constituent operating units.

PREVENTING "destructive" competition is one of our major chores. Consequently, private individuals and concerns undertaking to provide the public with essential transportation services are required to observe rigid rules of fair, just, and reasonable behavior. Rates which do not reflect true economic costs, for example, are not accepted as a means of advancing the interest of one segment of the industry or of one region or sector of the economy to the prejudice or disadvantage of any other. In this particular regulatory sphere, then, Congress has provided an exacting code of business ethics. The ultimate objective is to make the transportation system function as an impartial service agency for the national economy.

By preventing ruinous rate wars and the various other destructive incidents which flow from the forces of unrestrained competition, regulation has tended to promote the financial health of the carriers. At the same time, by constantly encouraging maximum efficiency and economy which flow from the forces of constructive competition, regulation has led to better and more reasonably priced service.

In every branch of transportation, technological and operational progress has been impressive. Constant search for newer, better, safer, and more economical ways of transporting goods and people has been a most encouraging characteristic of the entire industry.

In short, transportation today is a sound and highly productive segment of the national economy, rendering a service which is unequaled anywhere in the world. It is a privately owned industry, operating at a profit and paying taxes rather than depending on the federal Treasury for sustenance. This, in itself, is proof, I think, that regulation as we have known it in the transportation field has worked and worked well. It is an unequivocal answer to those who, on one pretext or another, would drastically change our regulatory pattern.

DESPITE many tangible entries to be shown on the asset side of the ledger, there are problems which cause us at the Interstate Commerce Commission and the industry generally the most serious concern. Time will not permit me to do more than briefly mention several of these considerations which have been brought to the attention of Congress through our legislative recommendations. However, a brief look at a few of the situations which are of fundamental importance, if a sound system of public transportation is to endure, will show something of what confronts us all.

In recent years, there has been a very rapid rise in the use of private transportation. There are a variety of reasons for this phenomenal growth. Partially, of course, it has been due to the expansion of our economy itself during the postwar period. We have more people today and therefore more business establishments to serve that larger population. Naturally, we require more grocery trucks, oil trucks, and so on. There is nothing wrong about that. But, certain other elements point to a dangerous condition so far as common carrier transport is concerned. And, the preservation of a strong and finan-

cially able common carrier system is absolutely essential to the nation's economic welfare and security.

To a large extent, statutory deficiencies are the causative agent. The Interstate Commerce Act, of course, contains a definition of a private carrier. That definition has been clarified by the courts in the so-called Lenoir Chair case (Brooks Transp. Co. *v.* United States (1951) 340 US 925, affirming 93 F Supp 517) in which a "primary business" test was enunciated to more specifically determine the nature of the activity. Private carriers as now defined are subject only to hours of service and safety regulation, whereas common and contract carriers are subject to comprehensive economic regulation.

Whenever there exists a certain degree of restriction, the natural inclination is to seek some way to avoid that control. However, this has all too frequently taken the form of subterfuge on the part of opportunists who desire to enter the field of for-hire transportation without proof of public convenience and necessity. One of the ways in which this masquerade is accomplished is through a "buy-and-sell" method of operation whereby bills of sale and invoices are issued to give the color of ownership of merchandise to the vehicle owner. This is not, in our opinion, legitimate private carriage as defined by the court in the Lenoir Chair case.

Manufacturers and mercantile establishments who use their own vehicles to deliver articles which they manufacture or sell are increasingly purchasing other merchandise at or near their delivery points. It is then transported to destinations near their own place of business for sale to others. Often the purpose of these transactions is merely to receive compensation for the otherwise empty return of their trucks. Sometimes the purchase and sale are bona fide merchandising ventures. In other cases, however, the real purpose is the furnishing of "bootleg" transportation at substandard rates.

The result of these practices is to deprive for-hire carriers of a large amount of freight, perhaps the very traffic needed to assure economic utilization of the for-hire carrier's plant and facilities. Obviously, this is injurious to sound public transportation, promotes discrimination between shippers, and threatens existing rate structures.

In our opinion, the situation cannot be coped with effectively under present laws. The courts have been far from uniform in their decisions where criminal prosecutions have been undertaken. At times, they have failed to recognize the intent of Congress in exempting bona fide private carriers from regulation. Accordingly, the commission has urged the Congress to amend the act so as to spell out clearly and concisely that anyone who purchases, transports, and sells property for the purpose of fostering a highway transportation business is engaging in a public transportation service and shall be deemed to be a common or contract carrier.

The growth of private carriage has also been encouraged by what I personally consider shortsighted governmental taxing policies—both local, state, and federal. As you know, there are still in existence today certain wartime excise taxes on the transportation of persons and property—3 per cent for the former and 10 per cent for the latter. The tax on freight is another persuasive reason why private carriage is thriving. The possibility of realizing a 3 per cent saving in transportation costs has no little appeal to astute businessmen. Consequently, a great many companies today are purchasing their own trucks and providing their own transportation to secure that saving.

The commission, of course, has no jurisdiction over these taxes, but we sincerely hope that they will soon be found unnecessary. After all, they do not produce a great deal of revenue, relatively speaking, but they do serve as an effective depressant to a vigorous for-hire carrier industry.

Since these wartime taxes were never intended to produce revenue, rather to discourage the use of transportation facilities in time of emergency, there is hardly a rational basis for their continuation.

Common carriers of all modes and many shippers are sharing a mounting concern over the volume of traffic which, as a result of court interpretation, is being lost to what are known as exempt commodity haulers. The Interstate Commerce Act exempts from regulation motor vehicles used in carrying livestock, fish, or agricultural

commodities. The Supreme Court recently, in East Texas Motor Freight Lines *v.* Frozen Food Express (1956) 351 US 49, 13 PUR3d 396, in holding (five to four) that the exemption also applied to fresh and frozen dressed poultry, stated that the exemption attaches so long as "the commodity retains a continuing substantial identity through the processing stage." If this concept is extended to cover other important commodities, such as frozen and canned fruits and vegetables, the result will be a serious impairment of the position of the regulated carriers —the very carriers upon whom small shippers must of necessity depend, including farmers for whom the exemption was primarily intended. Again, what is involved is high-grade, desirable traffic needed to compensate for certain unprofitable operations which every common carrier must experience.

THE commission has recommended to Congress that it redefine these exemptions to make them consistent with what seems clearly to have been the original legislative intent. Opposition to our recommendation, to put it mildly, is extremely heavy. Those who are hauling the lucrative traffic naturally do not want to lose it. Fortunately, a large measure of support for our position is being received from various sections of industry engaged in the processing of agricultural commodities. These businesses are beginning to recognize that their own best interests are served by the kind of rate and service stability provided only by a sound system of regulated transportation.

Another commission legislative recommendation, if adopted by the Congress, would to a great extent eliminate a growing problem confronting motor common and contract carriers. No longer is there a clear line of demarcation between these two types of services.

AS a result of the recent decision of the Supreme Court in United States *v.* Contract Steel Carriers, 350 US 409, 13 PUR3d 109, decided March 12, 1956, previous uncertainty has been compounded. In that case, the court held, among other things, that a contract carrier is free to aggressively search for new business within the limits of its license.

In other words, there is now no limit upon the number of contracts or class of persons a contract carrier may serve. To all intents and purposes the door to pure common carriage has been opened wide. It has been the commission's view, in accord with congressional intent, that contract carriage is basically a specialized or limited type of service. Now it appears that remedial legislation is about the only way that this clear-cut distinction can be restored.

Responsible elements in both the contract and common carrier industries are deeply concerned over this problem and have been working together to find a satisfactory solution. Recently a substitute bill, which seems to meet with the approval of the various interests concerned, was sent to Congress. We are, indeed, hopeful that this legislation will be favorably considered so that there can be an end to the present unsatisfactory situation.

OF primary interest to all of us is the recently announced investigation to be undertaken by the House Committee on Legislative Oversight. This investigation, as we understand it, will examine the activities of the various regulatory agencies, including the Interstate Commerce Commission, to ascertain if the laws are being administered as intended by Congress in their original enactment.

We at the ICC welcome such an inquiry. Every federal agency is subject to a certain amount of criticism for one reason or another and this approach by the House committee should serve to place the administrative function in its true perspective. The public, as well as the affected industries, will have an opportunity to look at the facts and we hope, thereby, to dispel the doubts created by frequent charges and countercharges concerning an agency's activities.

The House committee investigation should convincingly illustrate that an administrative agency is not a so-called "headless fourth branch of government," free to make law and interpret its functions as fancy may dictate. This is a perfect example of congressional supervision in action and should at least quiet some of the critics of the administrative process who so vehemently condemn the independent regulatory agency as an irresponsible and unaccountable creature.

The House committee is acting in a

most constructive manner. After all, we need an occasional airing of administrative activities if regulation is not to stagnate. Its inquiry should help the commissions and, indirectly, the regulated industries, by increasing confidence in the administrative process.

Without intending to impinge upon your courtesy in any way, I feel impelled to interject the position of the Interstate Commerce Commission with respect to the ABA's proposed code of administrative procedure. I know that it was formulated in all good faith with the best of intentions, and, of course, there are many meritorious features contained in it. But I wonder if full consideration was given to the impact of this code upon the public generally. We earnestly believe that some of the changes in current practice which the code proposes would effectively complicate and confuse the administrative process.

For example, the code proceeds upon the false and dangerous premise that determinations in the administrative field involve only private rights which should be judicialized and shaped into the image of a lawsuit. But it should be remembered that every proceeding coming before the ICC, and I presume all other regulatory agencies, primarily involves the broad *public interest*. It is utterly wrong to subordinate this interest to that of private parties. That, however, is precisely what would be done. ICC proceedings are not adversary as that word is generally understood at law.

Further, the proposed code would encourage a technical approach to matters which should be handled as simply and liberally as possible. The public, as well as the organized bar, frequently complains about government "red tape," but if this code is ever adopted we would soon consider today's conditions Utopian. Delays will be magnified, litigation on procedural matters will be encouraged, and dilatory tactics will be at a premium.

How will these dire predictions take form? One example should suffice. The proposed code would provide that "The findings of fact made by the presiding officer shall not be set aside by the agency unless clearly erroneous on the whole record." The result of this would be to transfer from agency heads to hearing examiners the power to determine finally every case in which the factual issues are so close that the "presiding officer's" decision is not clearly erroneous. It would be impossible to hold agency heads responsible for results. This would create a fruitful basis for litigation, not whether the agency had made a correct decision, but whether the hearing examiner was so clearly wrong as to justify reversal. I fail to see how this would improve anything and I think that upon reflection you will agree.

I trust that this rather brief look at a large and very important industry has furnished some insight into a few of that industry's problems, and has led to a greater appreciation of its contribution to our economy. If there is one single impression that I wish to leave with you, it is that under regulation our country has achieved a transportation system without parallel, indeed, without a close second. It operates successfully under our traditional private enterprise system and embraces more effective competition than most unregulated industries. Regulation has in large measure made transportation what it is today. It can help the industry achieve even greater heights in the future.

THE Public Utility Section of the American Bar Association is peculiarly in a position to assure continued progress and should contribute its help and advice. Transportation has its problems, as does every other industry, but they are not insurmountable if calm, reasoned thought is the rule and the public interest is always kept paramount.

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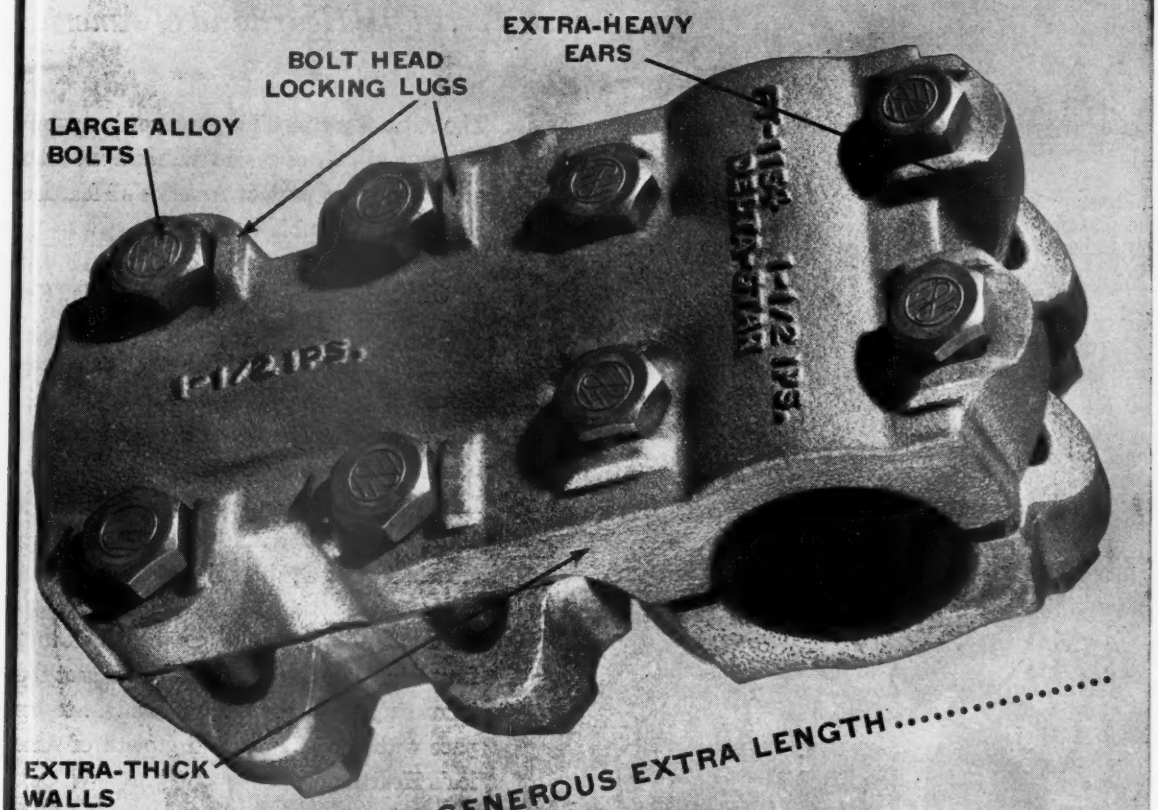

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Industrial Progress

Kentucky Utilities Named Winner G-E Nela Park Award

KENTUCKY Utilities Company has been named winner of the General Electric 1957 Nela Park Award. The award, a plaque, was presented to KU President Floyd I. Fairman at a GE-sponsored luncheon in Lexington recently by James C. Forbes, manager of residential sales for GE's Lamp Department, Cleveland.

Mr. Forbes said the award was made for the power company's "creative and imaginative bulb sales campaign conducted during October and November of 1956." KU competed against power companies across the nation who promote bulb sales through dealers.

The entire 1956 promotion was conducted through local dealers in the 77-county area served by KU and backed up by a full scale newspaper advertising campaign in more than 30 Kentucky newspapers. These ads, along with display aids and informative literature emphasizing the advantages of "enough light in the right places in the home," enabled KU to help the dealers sell 1,434,145 light bulbs during the two months' campaign.

AIEE Rural Electrification Conference Set For Minneapolis, October 29-31

LATEST advances in rural electrification will highlight the Third Annual Farm Electrification Conference of the American Institute of Electrical Engineers at the Hotel Nicollet, Minneapolis, Minn., October 29-31. The conference is sponsored by the Minnesota Section of the AIEE Farm Electrification Subcommittee of the Domestic and Commercial Applications Committee.

The meeting will cover practically every engineering phase of rural electrification. Papers will be devoted largely to new developments and techniques designed to meet the challenge raised by increasing demands for electric power in rural areas. Leading electrical utilities, equipment manufacturers, rural electrification representatives and other leaders in the farm electrification field, will address the conference.

A comprehensive program has been arranged. Speakers will present information and advice on newest developments in planning rural distribution systems, rural load characteristics, farm wiring requirements, utilization of electric light, heating and air conditioning.

Morning and afternoon sessions have been arranged so as to group the subjects as closely as possible. For example, the morning session on Tuesday, October 29th, will be devoted to farm wiring, followed by discussions on rural system planning in the afternoon. The agenda generally will adhere to this format, concluding with farm lighting and automatic feed handling on Thursday, October 31st.

On the afternoon of October 30th, conferees will make an inspection tour of nearby farm equipment manufacturing and industrial plants.

Calendar Lists Conventions In Electrical Industry

A NEW "KW Daily Reminder" calendar listing 144 important meetings, conventions, and educational seminars of interest to people in the electrical industry has been issued by Kaiser Aluminum & Chemical Sales, Inc. It covers the period from September 1, 1957, through August 31, 1958.

The durable folder, which fits easily into a brief case, also includes a page for personal notes and a complete twelve-month calendar giving national and local holidays, with extra space for jotting down daily reminders.

Copies may be obtained by writing Kaiser Aluminum & Chemical Sales, Inc., 919 North Michigan ave., Chicago 11, Ill., Att'n: Mr. Edward Collins.

R-R Celebrates Golden Anniversary of Kardex

REMINGTON Rand Division of Sperry Rand Corporation, is celebrating its Golden Anniversary of Kardex, by introducing its new Kardex "Aristocrat" model, in an 8-page, 4-color ilustrated folder (KD-829). Entitled, "The Finest Expression of Visible Record Keeping" the folder points to the many new features introduced in the new line.

The new folder covering the Aristocrat line is a mine of information logically arranged on the entire subject of instant, visible record keeping. Kardex Aristocrat makes instantly available, in an organized way, the most comprehensive range of facts and figures, permitting management to make fast, accurate decisions.

Some of the new features introduced include pearl gray slide fronts with stainless steel label holders giving a two-tone effect. Three new colors have been added to the line.

Additional features include a new pocket construction adding strength and protection to the records; a new card capacity available through improved design and construction and a new sturdy steel constructed shell affording less noise while in use, due to added interior deadening materials.

Copies of this folder, KD-829, may be obtained from any Remington Rand sales office or by writing to Remington Rand Division of Sperry Rand Corporation, 315 Fourth Avenue, New York 10.

(*Continued on page 26*)

180 Electrical Manufacturers Pledge Support For Live Better Electrically

ONE hundred and eighty electrical manufacturers have pledged their support for the industrywide Live Better Electrically program, as a result of a planned series of contacts with top manufacturer executives.

The manufacturer contact program was initiated and spearheaded by the Edison Electric Institute and member utilities participating in the long-range market development campaign.

Utility executives and Live Better Electrically regional managers conferred with sales, advertising and public relations officers of firms engaged in production of electrical equipment for consumer and industrial use.

Topics covered during the meetings included: overall purpose of the Live Better Electrically program; plans for the LBE fall push; possible tie-in opportunities that might be adapted to existing manufactur plans and activities.

Robert E. Boian, manager of t industrywide program, said that the manufacturers fully recognized th stake in the residential market f electrical home equipment. This ca vass of the electrical manufacturi field, he said, revealed that duri 1958 there would be more specific a intensive tie-in advertising and pr motion keyed to the electric livi theme.

He noted that encouraging ma facturer support already has been d veloped since the Live Better Ele trically program's inception in 19 Consumer and trade advertisi stockholder literature, dealer prom tional aids and considerable mercha dising efforts have been generated a cross-section of manufacturers. said.

Reynolds Introduces New Conductor For Overhead Lines

A NEW high-strength, low-cost a aluminum conductor (called 5005 A loy Conductor) for use in overhea electric power lines, has been deve oped by Reynolds Metals Compan

In making the announcement Re nolds officials stated that the new c ble is lighter in weight than copp or ACSR (Aluminum Cable Ste Reinforced) and that it is as low cost as ACSR and stronger tha standard EC (Electrical Conducto Grade) cable.

Unlike other all aluminum allo conductors, the new product is avai able "at no premium in cost," compa ny officials further stated. The co per 1,000 feet is no more than that o electrically equivalent sizes of 6/ ACSR.

The new 5005 conductor is repor ed to have excellent sag characteri tics in all loading zones, even in i smaller sizes. Under all conditions size, temperature, loading and leng of span, the new 5005 cables sag sub stantially less than EC cables, it wa stated. In urban span length, sags 60 degrees F. final compare very fa vorably with copper.

A seven-strand cable of Reynol 5005 alloy, according to the compan has the same conductance as conve tional 6/1 ACSR of the same size Current-carrying capacities for th 5005 cables are greater than for EC ACSR and copper cables having th same D.C. resistance. The new allo cables are larger and dissipate he

This is not an offer of these Securities for sale. The offer is made only by the Prospectus.

NEW ISSUE

312,583 Shares

United Utilities, Incorporated

Common Stock

(Par Value $10 Per Share)

The Company has issued Warrants, expiring at 3:00 P.M., Central Standard Time on September 13, 1957, to holders of its Common Stock, evidencing rights to subscribe for these shares at the rate of 1 share for each 6 shares, or portion thereof, held of record at the close of business August 28, 1957.

Subscription Price $19.25 per Share

The several Underwriters have agreed, subject to certain conditions, to purchase any unsubscribed shares and, during and after the subscription period, may offer shares of Common Stock as set forth in the Prospectus.

Copies of the Prospectus may be obtained in any State in which this announcement is circulated from only such of the underwriters, including the undersigned, as may lawfully offer these securities in such State.

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Bache & Co. **McDonald & Company** **The Ohio Company**

September 4, 1957.

DUSTRIAL PROGRESS—
ntinued)

er than comparable EC and cop- cables. At the same time, they do have the magnetic losses present ACSR.

plices and dead ends are easily le with the new alloy conductor, king it especially suitable for ur- area service. Since it has no steel e wire, it is ideal for installation contaminated atmospheres.

eynolds is prepared to accept or- s for seven-strand sizes of the 5005 cables up through 247,570 (4/0 EC equivalent). Complete rmation is available from Rey- ds electrical distributors or from nolds Metals Company, 2500 th Third street, Louisville, Ky.

Anchor Metals Executives Transferred to Fort Madison Plant

ALLACE J. Anderson and Dar- l W. McLemore, both of Fort rth, Texas, have assumed execu- e positions at the Fort Madison, wa division of Anchor Metals, Inc., er having been transferred from e Anchor Metals home office at rst, Texas.

Mr. Anderson is executive man- er and Mr. McLemore production nager of the new Iowa division, w under construction. The plant is pected to begin operation around vember 1st.

The plant will construct and fabri- e electrical transmission towers d switchyard units, and will serve e north central area of the United tes, Anchor Metals President yde Mooney, announced.

Kuhlman Offers Two Volume Story on Distribution Transformer Connectors

UHLMAN Electric Company of- rs a two volume story on Distribu- n Transformer Connectors in the o recent issues of "Kuhlman Kur- nts."

Volume I describes the various pes of internal connectors used in odern distribution transformers and troduces Kuhlman "Coordinated rimp" connector processing. Vol- me II describes common types of gh and low voltage external con- ctors and the theory of inherent silience in connectors, used for uminum and copper conductors.

For copies of the Kuhlman con- ctor story, write to the Kuhlman dvertising Department: Kuhlman lectric Company, P. O. Box 288, irmingham, Michigan.

(*Continued on page* 28)

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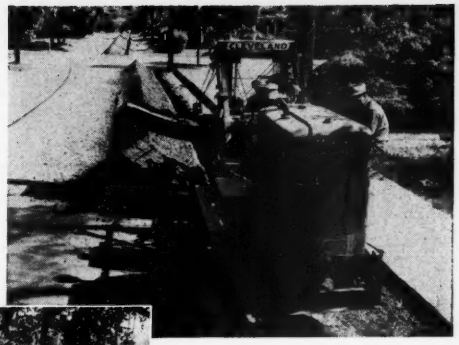

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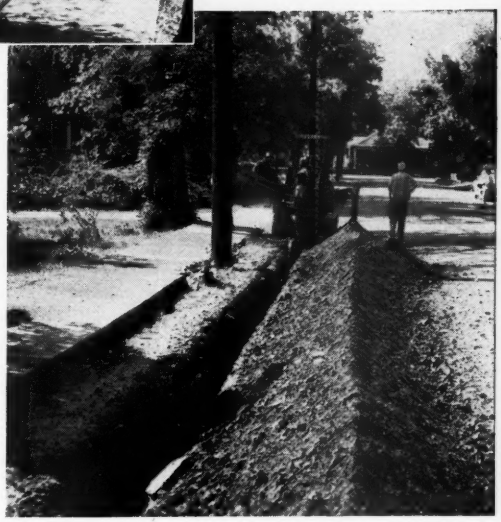

Etowah Construction Company uses its Cleveland 95's compactness and shiftable conveyor to advantage on this utilities job in Franklin, Tennessee.

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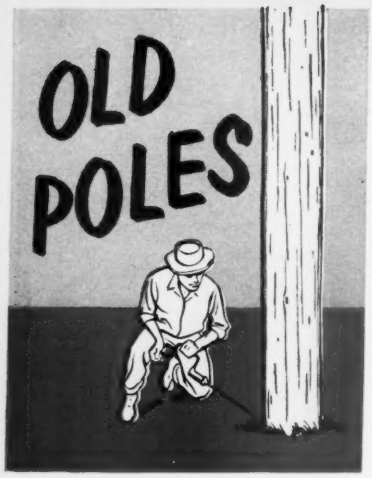

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A-C Releases New Self-Protecting Transformer Bulletin

CONSTRUCTION and design features of Allis-Chalmers self-protecting transformers in ratings 3 kva through 100 kva, 15 kv and below, are covered in a new bulletin released by the company.

The bulletin tells how the transformers, which are self-protecting against lightning, overloads and short circuits, improve service continuity, reduce operating and maintenance costs, and increase revenue.

Copies of "ACP Transformers," 61B7309C, are available on request from Allis-Chalmers Manufacturing Company, Milwaukee 1, Wisconsin.

National, Regional Officers Chosen By Illuminating Engineering Society

KIRK M. Reid, senior illuminating engineer of the General Electric Company's lamp division, Cleveland, will become president of the Illuminating Engineering Society October 1st.

As president-elect, Mr. Reid assisted the retiring president, Marshall N. Waterman, of the Westinghouse Lamp Division, in conducting the society's recent annual four-day conference which was attended by some 900 lighting engineers, designers and related professionals.

Others who were named to national and regional offices by the 8300-member professional organization were Joe B. Browder, Georgia Power Company, Atlanta, vice president; James R. Chambers, Appleton Electric Company, Chicago, treasurer; J. Dixon Mitchell, Westinghouse Lamp Division, Chamblee, Georgia, director, and J. D. Whitnell, Arizona Public Service Company, Phoenix, also a director.

New regional vice-presidents elected for two-year terms were James A. Banton, Tampa (Florida) Electric Company; A. E. Fleming, General Electric Supply Company, Salt Lake City; Reuben K. Lothrop, Southwestern Gas and Electric Company, Shreveport; Charles C. Shotwell, Philadelphia (Pennsylvania) Electric Company, and J. Carl Wilson, J. A. Wilson Lighting and Display, Ltd., Toronto.

Reid a Lighting Pioneer

Mr. Reid, who has spent 37 years in the lighting profession, is senior illuminating engineer in the General Electric Company Lamp Division, Cleveland. With the exception of one year's service with the Houst (Texas) Lighting and Power Co pany, he has been with G. E. duri his entire professional career.

Before his recent election to presidency of the I.E.S., he serv successively as vice president and member of the executive committ general secretary, treasurer, and as representative on the national en neering advisory committee. He is t author of nine papers presented national technical conferences of t society since 1936. His most rece paper, delivered in 1950, was entitl "Lighting of the Brooklyn Batte Tunnel."

Mr. Reid is a widely recogniz authority on street and highway ligh ing, and a pioneer in developing system for evaluating visibility lighted streets. He holds the degree Electrical Engineer and was honor with the Charles A. Coffin Awa partially for his evaluation studi which prompted many new develo ments in the design and constructio of street-lighting luminaries.

Browder Former I.E.S. National Treasurer

Mr. Browder, newly elected dire tor of the society, served as nation treasurer last year and was Soutl eastern regional vice president fro 1948 through 1951.

A member of the Georgia Pow Co. staff since 1939, he recently b came assistant to the vice president charge of sales and sales manager.

A native of Russellville, Kentuck he joined the I.E.S. in 1941 and, addition to serving on the by-law and other non-technical committee was a member of the street-lightin committee for three years. He is als a member of the National Society Professional Engineers, the Georgi Society of Professional Engineer and the Georgia Engineering Socie

He was chairman of the executiv committee of the 1957 National Tec nical Conference of the I.E.S in At lanta (September 9-13).

Chambers Active in I.E.S. Committ

Mr. Chambers, who is national sale manager of the Appleton Electri Company, was formerly sales ma ager of the Benjamin Electric Co pany, Chicago and has been active the lighting field for many years.

He has also been prominent many I.E.S. committees, both at th national and regional levels, havi served a term as regional vice pres dent. Most recently he was chairma of the society's public relations an information committee.

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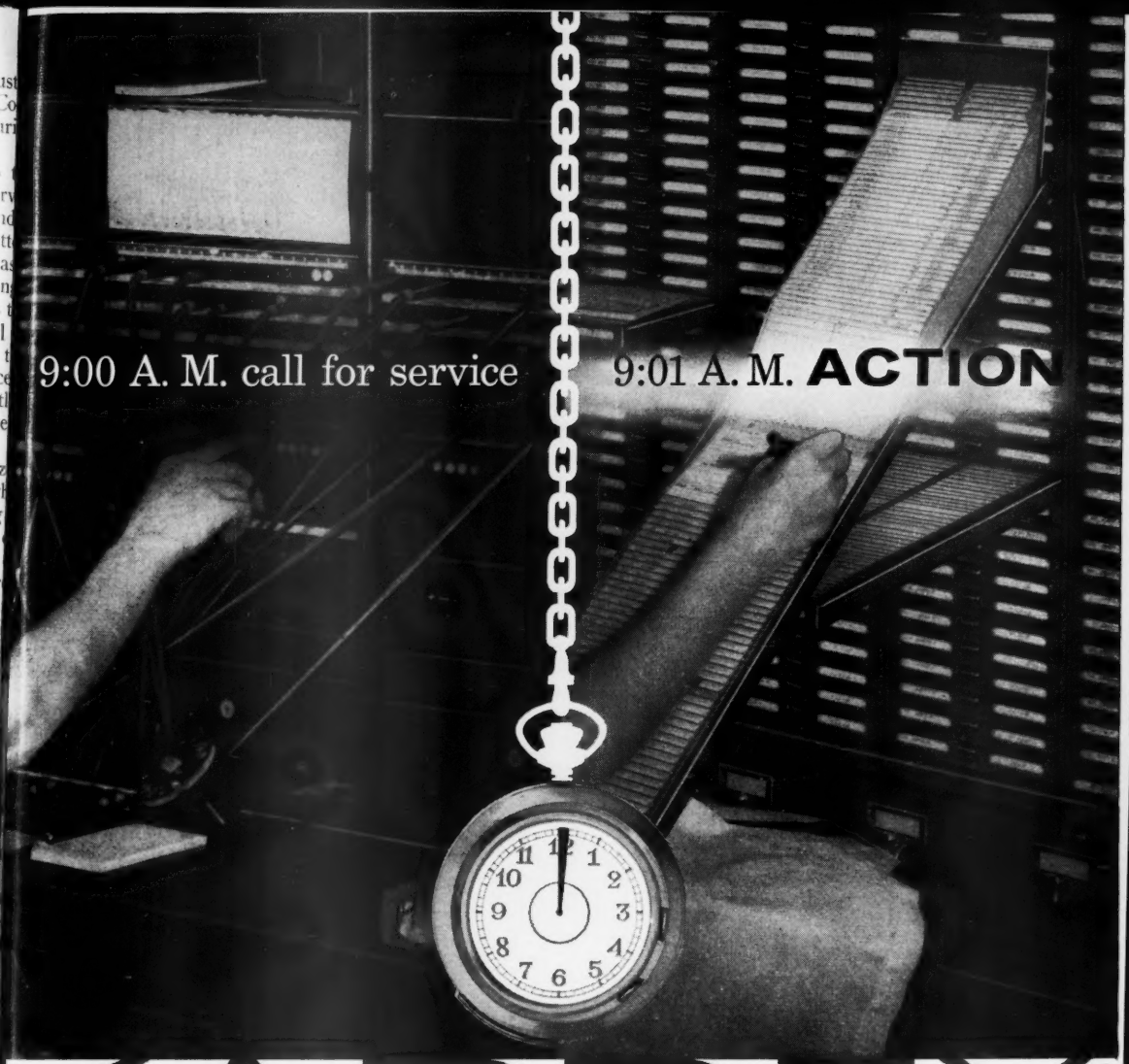

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Mitchell Covers Southeast

Southeastern regional vice president of the I.E.S. before his recent election as a society director, *Mr. Mitchell* is a regional engineer for the Westinghouse Lamp Division, covering the Southeastern section of the country from headquarters in Chamblee, Georgia. His assignment is to guide customers in the proper use of new light sources and to keep them advised of new engineering developments in the lamp and lighting fields.

He is a past chairman of the Georgia section of the I.E.S. and a member of the American Institute of Electrical Engineers, the Georgia Engineering Society and the Georgia and National Society of Professional Engineers.

Whitnell a Street-Lighting Expert

A registered electrical engineer in Arizona, *Mr. Whitnell* is commercial sales engineer for the Arizona Public Service Company, Phoenix, supervising the installation of street lighting throughout the state. He is also consultant to the company's field salesmen on commercial and industrial lighting design.

Temporary chairman of the Arizona chapter of the I.E.S. while it was being organized, Mr. Whitnell rose to the post of Intermountain regional vice president and director of the prominent professional society in the span of seven years.

He is an active member of the Pacific Coast Electrical Association and the National Society of Professional Engineers. He is also president of the Arizona Electric Club.

Banton Florida I.E.S. Organizer

Mr. Banton, whose vice presidential area will be the society's Southeastern region, is illuminating engineer for the Tampa (Florida) Electric Company which he joined as a student engineer in 1927 following his graduation from the Georgia School of Technology.

He was one of the organizers of the Florida section of the I.E.S. and was its second chairman. He is also a member of the Edison Electric Institute and is active on its street lighting committee of which he is subcommittee chairman.

Fleming with G.E. Since '37

Mr. Fleming, in his new post, will be the society's top officer for the Intermountain region. He is Rocky Mountain district manager for the General Electric Supply Company's apparatus department in Salt Lake City. He joined that organization in Denver as a lighting and lamp specialist in 1937.

He was instrumental in forming

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September 11, 1957.

e Utah chapter of the I.E.S. and as its first chairman in 1946 through 948. He is a member of the Utah ngineering Council and the Utah ilding and Construction Congress.

Lothrop Is Lighting Director

A graduate of Texas A. and M. llege in his native state, *Mr. Lothrop* s been with the Southwestern Gas Electric Co., Shreveport, Louisiana, r more than 30 years. He is presntly the company's lighting director. The new I.E.S. vice president will the chief officer in the society's uthwestern region. He helped to ganize the Ark-La-Tex chapter of e society and was its first chairman. e is also a member of the residential hting committee of the Edison ectric Institute and is a member of e board of directors of the Shreveort Science Education Council.

Shotwell Active in E.E.I.

Mr. Shotwell, newly elected I.E.S. ce president, will be in charge of e society's East-Central region. He assistant sales manager of the Philelphia Electric Company's industial sales department.

A registered professional engineer, has been a member of the industrial power and heating group of the Edison Electric Institute, and an active member of the manufacturers' division of the Electrical Association of Philadelphia for many years. He has represented the Philadelphia section of the I.E.S. on many national and local committees and served as a national director of the society from 1953 through 1956.

Wilson in Lighting Since '38

Mr. Wilson is a graduate of the University of Toronto with a degree in electrical engineering and a specialty in illumination. He succeeded his father last year as president and general manager of J. A. Wilson Lighting and Display, Ltd., Toronto, after serving as administrative vice president since 1938.

The new I.E.S. vice president, who will be the society's chief officer in its Canadian region, was chairman of the Toronto Chapter in 1948. He is a member of the Professional Engineers of Ontario.

Argonne National Lab Awards Contract to United Engineers

Argonne National Laboratory has announced the awarding of a contract to United Engineers & Constructors, Inc., of Philadelphia, for the detailed design of a boiling reactor facility to be erected at the Laboratory's Idaho Division Site.

J. H. McKinley, business manager of the Laboratory, said the presently anticipated cost of the nuclear energy facility, as now planned, would be about $8,500,000.

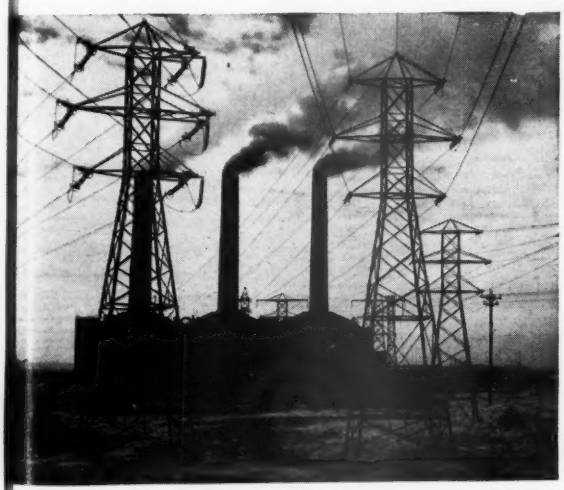
This installation will be known as the Argonne Boiling Reactor, or ARBOR, facility.

McKinley said the facility will provide the necessary physical plant for experiments designed to yield performance and operational data for various types of boiling reactor concepts over a wide range of conditions useful for the development of this type as a source of power.

Completion of the design work has been scheduled for May 1, 1958, McKinley said. The work, he said, will be conducted by United Engineers & Constructors Inc. in cooperation with other design work on unique features of the plant which will be done by Argonne scientists and engineers.

McKinley said that it was antici-

(*Continued on page* 32)



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pated that contracts for the erection of the facility will be awarded by about July 1, 1958.

Purpose of the plant will be to investigate full-scale boiling water power reactor systems operating at pressures up to 2,000 pounds of pressure per square inch and developing 200,000 kilowatts of heat under varying conditions.

Argonne National Laboratory already is operating at its Lemont, Illinois site the Experimental Boiling Water Reactor. The EBWR is considered a promising new system for the generation of power from nuclear fuels. The EBWR is the first reactor in the Atomic Energy Commission's power reactor program to be completed. It is a direct cycle boiling, 20,000 kilowatt (heat) reactor which provides the energy for generating 5,000 kw electricity.

Argonne's Idaho Division is located at the National Reactor Testing Station, about 50 miles due west of Idaho Falls. Argonne is operated by the University of Chicago for the U.S. Atomic Energy Commission.

Protected Distribution Transformer Line Announced By Federal Pacific Electric Co.

A new line of fully protected distribution transformers for utility and industrial services, designed to provide many features favored by electric utility engineers, has been announced by the Pacific Switchgear Division, Federal Pacific Electric Company, 5815 Third street, San Francisco 24, California.

Full current protection for ratings from 10 to 100 kva is provided by type FCP. Full current protection plus surge protection is provided by type FSP.

Both types incorporate internal circuit breakers, internally mounted primarily fuses, warning signal lamp and emergency overload device.

Circuit breakers are mounted directly above core and coils, submerged in oil. They are tripped by bimetal elements which are sensitive to transformer winding temperature. Breakers are series-connected in the low voltage winding.

As maximum safe transformer load is approached, temperature rise deflects the bimetal and connects a red warning lamp. If load and temperature continue to rise, further deflection trips the breaker and disconnects the secondary load.

Service can be restored while the transformer is hot by movement of an emergency overload lever which is conveniently located below the warning lamp. When the lever is moved to maximum position, warning lamp and breaker settings are advanced to permit nominal overloading. Movement of the lever to reset and reclosing position disconnects the warning lamp and closes the breaker. Excessive overload condition will automatically recycle the protective devices when the lever is held in "on" position.

Primary fuses, for each incoming line, are located in primary bushings or on transformer terminal boards.

Type FSP transformers have all the above protective features, plus surge protection from a valve type lightning arrester. The valve type arrester inner parts will not burn during repetitive operation, so short circuit currents are eliminated during discharge. The arrester is mounted close to primary bushings to provide external air gap to ground.

Westinghouse Equipment To Power Pennsylvania P&L's Largest Station

A 300,000-kw turbine-generator unit and related equipment totaling approximately $12,000,000 will be built by the Westinghouse Electric Corporation for the largest power plant ever constructed by the Pennsylvania Power and Light Company.

The 3600-rpm cross-compound steam turbine will be the first of possibly six units planned for the Brunner Island steam electric station located on the west bank of the Susquehanna river 15 miles below Harrisburg. The equipment is scheduled for delivery in the fall of 1959.

When the Brunner Island station is completed, the total generating capacity of the Pennsylvania Power and Light Company will have risen to more than 1.8 million kilowatts. More than 690,000 customers in a rapidly expanding industrial and rural area are serviced by Pennsylvania Power and Light.

The equipment includes one of the biggest condensers that Westinghouse has ever built. Designated a two-pass surface condenser, the unit is capable of handling 1,440,000 pounds of steam an hour.

Gas Turbine Future Called Bright

THE industrial gas turbine has come of age and its future is bright, it was reported at the Pacific General Meeting of the American Institute of Electrical Engineers recently.

"With the operating experience gained through the past decade," K. L. Rieke, Westinghouse Electric Corp., Lester, Pa., and W. N. Hornberger, Westinghouse, San Francisco, told a power generation symposium, "has come the acceptance of the gas turbine as a reliable prime mover by the power generation industry. Full advantage should be taken of the economies offered by the gas turbine in many varied applications. They added that these applications are expanding at an ever increasing rate.

Mr. Rieke and Mr. Hornberger added that application of gas turbines with nuclear gas reactors is being actively investigated.

The gas turbine as a prime mover in the power generation field has proved its reliability, they said. Gas turbine power generating capacity being delivered throughout the world in 1957 and 1958 is 137 per cent of the capacity installed from the birth of the industrial gas turbine in 1949 up to and including 1956, they asserted. In the Western Hemisphere United States, Canada and Latin America, the capacity to be installed in 1957-58 is 180 per cent of that installed during the past 11 years, they said, adding that in the United States about a fourth of the present installed gas turbines are for generator applications and the remainder are mechanical drive or process units such as paper. Throughout the world more than 40 per cent of the total gas turbine market has been in the power generation field.

"The future of the gas turbine is bright," the authors said in a paper, Gas Turbines Applied To Power Generation. "It has in the past 10 years learned to walk; now it is reaching out as a dependable prime mover to find its rapidly expanding fields of application."

VEPCO Approves Plan to Construct Atomic Reactor

THE Board of Directors of Virginia Electric and Power Company recently approved the plan of the Carolinas Virginia Nuclear Power Associates to construct an atomic reactor for participation under the Third Round invitation of the Atomic Energy Commission.

Carolinas Virginia Nuclear Power Associates is a non-profit corporation composed of Vepco, Carolina Power and Light Company, Duke Power Company and South Carolina Electric and Gas Company.

Erwin H. Will, Vepco president, said the company is spending approximately $70,000,000 in construction during the year.

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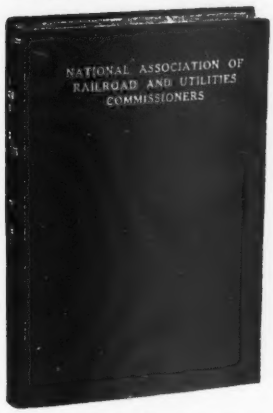

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INDEX TO ADVERTISERS

[The Fortnightly lists below the advertisers in this issue for ready reference. Their products and services cover a wide range of utility needs.]

A

Abrams Aerial Survey Corporation 37
*Allen & Company .....
*Allis-Chalmers Manufacturing Company .....
American Appraisal Company, The 31
*American Telephone & Telegraph Company .....
*AMP Incorporated .....
*Analysts Journal, The .....
Anchor Metals, Inc. 7

B

Babcock & Wilcox Company, The 4-5
*Beckman Instruments, Inc. .....
*Bell Helicopter Corp. .....
Black & Veatch, Consulting Engineers 34
*Blyth & Company, Inc. .....
Burns & McDonnell Engineering Company 37

C

Carter, Earl L., Consulting Engineer 37
*Cating Rope Works, Inc. .....
Cleveland Trencher Company, The 27
Columbia Gas System, Inc., The 24
Combustion Engineering, Inc. 14-15
Commonwealth Associates, Inc. 18
Commonwealth Services, Inc. 18
Consolidated Gas and Service Company 37

D

Day & Zimmermann, Inc., Engineers 34
Delta-Star Electric Division, H. K. Porter Company, Inc. 23
Dodge Division of Chrysler Corp. 20
Drake & Townsend, Inc. 34
Dresser Industries, Inc. ..... Outside Back Cover

E

*Eastman Dillon, Union Securities & Company .....
*Ebasco Services Incorporated .....
*Electro-Motive Division, General Motors .....

F

*First Boston Corporation, The .....
*Fish Service Corporation .....
Ford, Bacon & Davis, Inc., Engineers 34

G

Gannett Fleming Corddry and Carpenter, Inc. 37
General Electric Company ..... Inside Front Cover
Gibbs & Hill, Inc., Consulting Engineers 34
Gilbert Associates, Inc., Engineers 34
Gilman, W. C., & Company, Engineers 35
*Glore, Forgan & Company .....

H

Haberly, Francis S., Consulting Engineers 37
Halsey, Stuart & Company, Inc. 30
*Harriman, Ripley & Company .....
Hirsch, Gustav, Organization, Inc. 35
Hoosier Engineering Company 35

I

International Business Machines Corp. 19
*International Harvester Company, The .....
Irving Trust Company 16

J

Jackson & Moreland, Inc., Engineers 37
Jensen, Bowen & Farrell, Engineers 35
*Justrite Mfg. Company .....

K

*Kellogg, M. W., Company, The .....
Kerite Company, The 13
Kidder, Peabody & Company 26
*Kuhn Loeb & Company .....
Kuljian Corporation, The 35

L

*Langley, W. C. & Co. .....
Leffler, William S., Engineers Associated 35
*Lehman Brothers .....
*Loeb (Carl M.) Rhoades & Co. .....
Loftus, Peter F., Corporation 37
Lutz & May Company, Consulting Engineers 37

M

*Main, Chas. T., Inc., Engineers .....
*McCabe-Powers Auto Body Company .....
*Merrill Lynch, Pierce, Fenner & Beane .....
Middle West Service Company 36
Miner and Miner 37
*Minnesota Mining & Mfg. Company .....
*Morgan Stanley & Company .....
Morysville Body Works, Inc. 31
*Motorola Communications & Electronics, Inc. .....

N

National Association of Railroad & Utilities Commissioners 33
Newport News Shipbuilding & Dry Dock Co. Inside Back Cover
*Nuclear Development Associates, Inc. .....

O

Osmose Wood Preserving Co. of America, Inc. 28

P

*Pacific Pumps, Inc. .....
*Parkersburg Rig & Reel Company, The .....
Pioneer Service & Engineering Company 9, 36
Pittsburgh Testing Laboratory 37

R

Recording & Statistical Corporation 11
Remington Rand Div. of Sperry Rand Corp. 29
Robertson, H. H., Company 17

S

Sanderson & Porter, Engineers 36
Sargent & Lundy, Engineers 36
Schulman, A. S., Electric Co., Engineers 37
*Smith, Barney & Company .....
*Sprague Meter Company, The .....
Stafford, R. W., Company, The, Consultants 37
Stone and Webster Engineering Corporation 36
Sverdrup & Parcel, Inc., Engineers 37

T

*Texas Eastern Transmission Corporation .....

W

*Westinghouse Electric Corporation .....
White, J. G., Engineering Corp., The 36
*White, Weld & Co. .....
Whitman, Requardt and Associates 36

Y

*Yawman and Erbe Mfg. Co. .....

Professional Directory 34-37

*Fortnightly advertisers not in this issue.

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